Name: **Enrolment No:**	UPES UNIVERSITY OF TOMORROW

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, December- 2022

Course Name: Economic Geology **Semester: V**
Programme Name: B. Sc, Geology (Hons) **Time: 03 hrs**
Course Code: PEGS 3026 **Max. Marks: 100**

SECTION A (5Qx04M = 20 Marks)

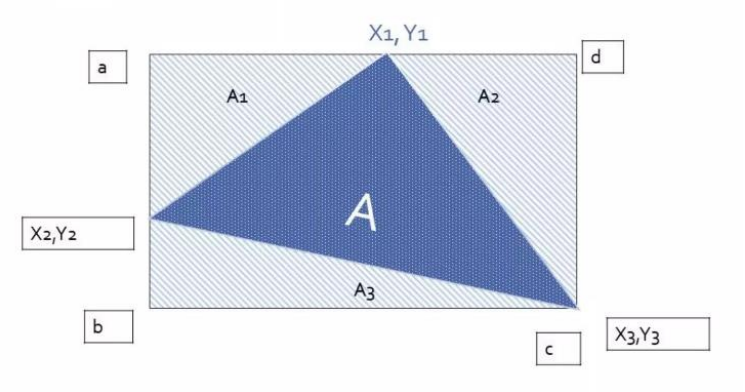
Q 1	a. MCR stands for ---- b. The oldest BIF formed by --------- c. Hydrothermal deposits found in folded strata consisting of alternate hard and soft rocks known as ------- d. Comb structure found associated with -------deposit	**04**	**CO1**
Q 2	Match the column **A** **B** Raptian Non-volcanic Violarite Oxide Apron zone Nickel Veinlet/ stringer stockwork	**04**	**CO1**
Q 3	Identify the most important source of minerals for VMS deposit	**04**	**CO2**
Q 4	Critically examine the role of pyrite in formation of Supergene deposits	**04**	**CO4**
Q 5	Nugget Effect is bias/ blessing in sampling, analyze	**04**	**CO3**

SECTION B (4Qx10M = 40 Marks)

Q 6	Organize the factors responsible for the formation of hydrothermal deposits, highlighting the importance of temperature	**10**	**CO4**
Q 7	Differentiate between fractional & alternate shoveling	**10**	**CO2**
Q 8	Discuss the influence of chemical and physical characteristics of rock in the localization of hydrothermal ore deposits.	**10**	**CO2**
Q 9	There is an ore deposit having an area of 15 sq. kms with a vertical extension of of12 mtrs. The bulk density of the ore is 3500 kg/m^3. Calculate the reserve in million tons.	**10**	**CO3**

SECTION C (2Qx20M = 40 Marks)

Q 10	The initial cash outlay of a Bauxite deposit is 2,00,000. The cash inflows will be 40000, 30000, 20000, and 50000 in 4 years. Calculate the NPV and judge the project viability.	**20**	**CO3**

Q 11	Using neat sketch, differentiate between included & extended area methods of Reserve estimation. With the given set of information and Schematic, calculate the ore reserve for deposit **A** Corresponding thickness= 3, 5 & 4 mtrs respectively. The average density of ore is 1.5 ton/ m^3.  	**20**	**CO4**

Easting (in mtrs)	Northing (in mtrs)
1100	1200
1500	1200
1100	800