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Name of Examination (Please tick, symbol is given)	:	MID		END	✓	SUPPLE	
Name of the College (Please tick, symbol is given)	:	COES	✓	CMES		COLS	
Program/Course	:	B. Tech GIE					
Semester	:	VIII					
Name of the Subject	:	Applications of Geo-informatics II					
Subject Code	:	GIEG 402					
Name of Question Paper Setter	:	Dr. Sudip Kumar Saha					
Employee Code	:	40001590					
Mobile & Extension	:	9897128879 &					

Note: Please mention additional Stationery to be provided, during examination such as Table/Graph Sheet etc. else mention "NOT APPLICABLE":

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UNIVERSITY OF PETROLEUM AND ENERGY STUDIES

UPES
THE NATION BUILDERS UNIVERSITY

End Semester Examination, April, 2017

Program/course: B. Tech GIE   Semester –VII
Subject: Applications of Geo-informatics II   Max. Marks   : 100
Code   : GIEG 402   Duration   : 3 Hrs
No. of page/s: 2

Section –A

Answer all Questions   (4x5 = 20)

1. Define rationalized variable and it is used Geo-statistics   [5]

2. Give empirical formula of spatial semi-variance   [5]

3. Define DEM derived topographic wetness and stream power indices with empirical relationships   [5]

4. Advantages and disadvantages of server side Web GIS   [5]

Section –B

Answer all Questions   (5X12 = 60)

5. Write the mathematical models of Spherical, Exponential & Gausian semi-variogram and explain with graphical diagrams   [12]

6. (a) Write short note on Co-kriging method of geo-statistical interpolation   [6]

    (b) List various uses of DEM in natural resources inventory and geo-exploration   [6]

7. Discuss in details major characteristics of internet (web) GIS   [12]

8. Discuss various aspect of web GIS data interoperability   [12]

9. Give an account of use of DEM in terrain visualization and 3D GIS   [12]

Answer all Questions   **(1X20 = 20)**

10. Discuss with a case example integrated GIS based analysis for mineral exploration using satellite derived inputs and geochemical & geophysical survey data   [20]

OR

Discuss with a case example – computation of geo-statistical semivariogram with ore chemical assay data collected with geo-statistical sampling method   [20]