AR - 18
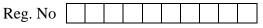
GIET UNIVERSITY, GUNUPUR – 765022

B. Sc (AG) (Fifth Semester) Examinations, December – 2020

SC 353 - Geo –Informatics and Nano technology for precision farming 2(1+1)

Time: 2 hrs
Maximum: 50 Marks

(The figures in the right hand margin indicate marks.)
SECTION – A
(Answer **all** questions of Section – A)

Q.1 **Fill in the Blanks with suitable and meaningful word(s):**   [0.5 X 10 = 5]

a) The Geographical information Science is called --------------------.

b) The meaning of Nano is ------------

c) ------------ -- ------is the science of getting information from distance.

d) Precision Agriculture is also known as ----------------------- farming

e).In Remote sensing,………………….. is used as information carrier.

f) Spectral range for thermal remote sensing is ------------------

g)Variation from place to place is called as …………… variation.

h) Nano particles size ranges --------------

i). Nanotechnology is very helpful for ------------- farming.

j)At different time, variation of parameter of same location is called as …………… variation

2. **Define or explain the following in few sentences**   [5 × 1 = 5]

a) Satellite farming

b) GIS

c) STCR

d) Electromagnetic radiation

e) Component of precision farming

Q.3. Match the following   [10 x 0.5 = 5]

Column A		Column B	
(i)	GIS	(a)	Tomlinson
(ii)	Nanotechnology	(b)	SSCM
(iii)	STCR	(c)	P R Pisharoty
(iv)	Vector model	(d)	) 1-100 nm
(v)	Cartography	(e)	Scale
(vi)	Remote sensing	(f)	Continues features
(vii)	Precision farming	(g)	Earth science
(viii)	Nanoscale	(h)	Norio Taniguchi
(ix)	Geodesy	(i)	Ramamoorthy
(x)	Raster Model	(j)	Discrete features

Q.4. Write TRUE or FALSE against the following statements   **[10 × 0.5 = 5]**

a) TheSuccess of precision farming depends on assessment of variability.

b) Soil spectral reflectance has one pick.

c) The remote sensing generates information.

d) The requirement of Nano fertilizer is all time more than conventional fertilizers.

e) Success of precision farming is more in western world due to use of high spatial information.

f) At Nano scale material gravity is less important property

g) Nano Technology: Fundamentals and Applications- is written by Karkare, M.

h) In remote sensing photograph is taken by touching the object.

i) Components of precision agriculture are data base, technology and management

j) Technology is not required for Precision agriculture

SECTION – B: (Long Answer Questions)

(Attempt **ANY FIVE** questions. Each question carries equal marks)   **[5 x 6 =30]**

5) Diagrammatically illustrate the working principles of remote sensing?

6) Describe different component of GPS,their functions and draw a level diagram of it?

7) How remote sensing is used for soil resource mapping and management?

8) Describe in brief about Geo Informatics and different techniques used for Precision agriculture?

9) Describe principles and characteristics of farming system?

10) Describe application of Nano technology in fertilizer and tillage management?

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