M. Tech im Agricultural Engineering (Soils. Water Comservation code No (355)

			estion Booklet No
(To	be filled up by t	he candidate by blue/bla	ick ball-point pen)
Roll No.			
Roll No. (Write the digits in word	ls)	2017	194.
Serial No. of OMR Ans	wer Sheet		
Day and Date		100	(Signature of Invigilator)

INSTRUCTIONS TO CANDIDATES

(Use only blue/black ball-point pen in the space above and on both sides of the Answer Sheet)

- 1. Within 30 minutes of the issue of the Question Booklet, check the Question Booklet to ensure that it contains all the pages in correct sequence and that no page/question is missing. In case of faulty Question Booklet bring it to the notice of the Superintendent/Invigilators immediately to obtain a fresh Question Booklet.
- 2. Do not bring any loose paper, written or blank, inside the Examination Hall except the Admit Card without its envelope.
- 3. A separate Answer Sheet is given. It should not be folded or mutilated. A second Answer Sheet shall not be provided. Only the Answer Sheet will be evaluated
- 4. Write your Roll Number and Serial Number of the Answer Sheet by pen in the space provided above.
- 5. On the front page of the Answer Sheet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, wherever applicable, write the Question Booklet Number and the Set Number in appropriate places.
- 6. No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) on OMR sheet and also Roll No. and OMR sheet No. on the Question Booklet.
- 7. Any change in the aforesaid entries is to be verified by the invigilator, otherwise it will be taken as unfair means.
- 8. Each question in this Booklet is followed by four alternative answers. For each question, you are to record the correct option on the Answer Sheet by darkening the appropriate circle in the corresponding row of the Answer Sheet, by ball-point pen as mentioned in the guidelines given on the first page of the Answer Sheet.
- For each question, darken only one circle on the Answer Stiest. If you darken more than one circle or darken a circle partially, the answer will be treated as incorrect.
- 10. Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question, leave all the circles in the corresponding row blank (such question will be awarded zero mark).
- 11. For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet.
- 12. Deposit only the OMR Answer Sheet at the end of the Test.
- 13. You are not permitted to leave the Examination Hall until the end of the Test.
- 14. If a candidate attempts to use any form of unfair means, he/sire small be liable to such punishment as

। उपर्यक्त निर्देश हिन्दी में अन्तिम आवरण-पष्ठ पर दिये गए हैं]

Total No. of Printed Pages: 26





ROUGH WORK रफ़ कार्य



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M. Tech. in Agricultural Engineering c, soils Wader Conservation codeNo, (355) 17P/289/22

No. of Questions 120

Ti	Time: 2 Hours					Fuli Marks: 36
N		marks. Zero m	One mark will ark will be award	l be d led for	educted for each unattempted	
_	(ii)		than one alternative answer, choose t			be approximate to th
1.	Bucke	t capacit	y of tipping buck	et rain	gauge is	
	(1) 0.2	25 mm o	f rainfall	(2)	25 mm of rainfa	1
	(3) 12	.7 mm o	f rainfall	(4)	50 mm of rain fa	11
2.	The flo	w veloc	ity of run-off at	which	washing of soil	particle takes place is
	(1) Ma	ximum 1	velocity	(2)	Permissible veto	city
	(3) Cri	itical vel	ocity		Design velocity	•
3.	The ave	rage rai	nfall in India is ab	out		
	(1) 119	4 mm	(2) 1384 mm		(3) 1591 mm	(4) 2000 mm
4.	Infiltrat	ion is m	easured by		35	
	(1) Cyli	indrical	metal rings	(2) L	IS WE Class A par	i ·
	(3) Lysi	imeter		(4). R	ain gauge	
				(1)-		- (Turn Over)



5.	Evaporation from water surface is transformed into	is the	process by	which liq	uid o	n free surface
	(1) A solid state	(2)	Clouds			•
	(3) A gaseous state	(4)	Rainfall			
6.	Evaporation from a free water su	ırface	is measure	ed by		
	(1) Lysimeter	(2)	Infiltrome	eter		si .
	(3) USWB class A pan	(4)	Anemome	eter .		
7.	Infiltration index is the most cor	nmon	ly used me	thod for d	eterm	ination of the
	(1) Infiltration rate		(2) Cumu	lative infi	tratio	n
	(3) Abstraction from precipitati	ion	(4) Const	ımptive us	e	
8.	Diameter of rainfall collector in	a Noi	n-recording	type rain	gaug	e is
	(1) 8 cm (2) 13.5 cm		(3) 12.7	cm	(4)	30 cm
9.	A hyetograph is drawn as a plot of	of		(1		_
	(1) Runoff discharge vs. time					
•	(2) Rainfall intensity vs. time				•	
	(3) Cumulative runoff vs. time					
	(4) Rainfall volume vs. time					
		(2)		1853	(Continued)



	(1) Rainfall intensity vs. time
	(2) Accumulated rainfall depth vs. time in a chronological order
	(3) Cumulative rainfall intensity vs. time
	(4) Rainfall volume vs. time
11.	Thiessen polygons are drawn by
	(1) Joining rain gauge stations
	(2) Drawing lines of equal elevation
	(3) Drawing perpendiculars of lines joining rain gauge stations
	(4) Drawing lines of equal rainfall
12.	Isohyets are drawn by
	(1) Joining rain gauge stations
	(2) Drawing lines of equal elevation
	(3) Drawing perpendiculars of lines joining rain gauge stations
	(4) Drawing lines of equal precipitation depth for a given duration
	(3)
	(Turn Over)

10. The mass rainfall curve is drawn as a plot of



13.	While calculating optimal number of stations in a watershed, the allowable error for estimation of rainfall is generally taken as				
	(1) 2%	(2) 8%		(3) 10%	(4) 25%
14.	Which of the foll velocity?	lowing is the mo	st ac	curate instrument	for measuring stream
	(1) Coshocton w	heel	(2)	Surface float	
	(3) Current mete	er	(4)	H-flume	
iś.	Base flow is sepa	rated from a			
	(1) Surface hydro	graph	(2)	Flood hydrograph	
	(3) Unit hydrogra	aph	(4)	Hyetograph	
ko.	A Unit hydrograp	oh consist of one	unit	of	
	(1) Effective rain	rfall duration	(2)	Peak discharge	
	(5) Hydrograph 1	time base	(4)	Direct runoff	•
1.	If a watershed ha pared to that of same, will be	s high drainage of a low drainage	densi dens	ty, then the peak of sity, when all other	f its hydrograph com- er factors remain the
	(1) Sharp crestee	d	(2)	Wide crested	
	(3) Flat crested		(4)	Double crested	
			(4))	(Continued)



18. In a watershed	In a watershed the number of non-recording rain gauge are installed as						
(1) 10			*				
(2) 20							
(3) 90% of the	total estimated rai	n gauge station					
(4) 5							
19. In Rational form	nula i.e., $Q_p = \tilde{C}$	A/360, the value	of rainfall intensity (I) is				
	•		V %				
(1) cm/hr	(2) mm/hr	(3) m/hr	(4) m/sec				
20. Unit of runoff co	pefficient in the R	ational formula is	TI - Tredate.				
(1) Dimension	233	(2) cm					
(3) mm		(4) m					
21. Watershed shape	is evaluated by						
(1) Form factor		,- 					
(2) Compactness	factor	e age of the se					
(3) Form factor ar	nd compactness fa	ctor					
(4) Stream density							
	VS		 .				
	~	<u>`</u>	(Turn Over)				



22.	A small size watershed is domina	ted by
	(1) Surface runoff	(2) Base flow
	(3) Overland flow	(4) Indirect runoff
23.	A stream in which flow is continu	ued throughout the year is called
	(1) Ephemeral stream	(2) Perincal stream
	(3) Intermittent stream	(4) Spring
24.	Area of hydrograph represents th	e .
	(1) Rainfall depth	(2) Runoff rate
	(3) Total runoff volume	(4) Discharge rate
25.	Pressure drop through a media fi	lter used in drip irrigation should not exceed
	(1) 70 kPa (2) 100 kPa	(3) 130 kPa (4) 60 kPa
26.	For chemigation of micro-nutrie	ents the best means is
	(1) Raingun	(2) Sprinkler system
	(3) Drip system	(4) Foggers
27.		r can be suitably fertigated?
21.	(1) Urea	(2) DAP (solid)
	(3) Potassium sulphate	angle super phosphate
	(3) 10	(Continued)
	*	(6)



28.	If the Impellor s	peed of centrifuga	pump is doubled, the	e power consumption
	(1) the same	(2) 4 times	(3) 8 times	(4) 16 times
29.	Crown root init	tiation is one of the	ne critical stages sus	ceptible to moisture
i.	(1) Chickpea	(2) Pigeonpea	(3) Cowpea	(4) Wheat
30.	Normally the ro	ot zone depth cons	sidered to be kept fre	e from groundwater
	(1) 0.5 m	(2) 1.5 m	(3) 3 m	(4) 4 m
31.	Application of fe	rtilizer with irrigat	ion is called	
	(1) Chemigation	(2) Fertigation .	(3) Fertilization	(4) Dosing
32.	Overall project in is about	rigation efficiency	in Govt. owned irrigat	ion projects in India
	(1) 10%	(2) 30%	(3) 60%	- (4) 80%
33.	In humid areas dra	inage is planned ac	cording to	
	(1) Rainfalf		Humidity	
	(3) Number of rai	ny days	None of the obsession	Hebove
	F - 66.	< T		(Turn Over)



34.	Canal lining is essential to check	the .	
	(1) Seepage losses	(2) Evaporation losses	
	(3) Growth of weeds	(4) Flow rate of canal	
35.	USWB Class A pan evaporimete	r has diameter of about	
	(1) 100 cm (2) 120 cm	(3) 150 cm	(4) 175 cm
36.	Water meter is used for measuri	ng the	
	(1) Stream current	(2) Pipe flow	
	(3) Runoff	(4) Channel flow	
37.	Which of the following is not re	lated to irrigation?	
	(1) Check gate	(2) Water course	
	(3) Turnout	(4) Coshocton wheel	
38.	Which of the term is not related	to drainage?	
	(1) Venturi meter	(2) Mole	
	(3) 20-40 rule	(4) Water logging	
39.	Drainable water is the		
	(1) Hygroscopic water	(2) Capillary water	
	(3) Gravitational water	(4) Perched water	
		(8)	(Continued)
		101	



40,	10 per cent drainable porosity	refers that on draining 1 cm	water from soil
(K	(1) The water table gets lower	red by 10 cm	
	(2) The water table gets lower	red by 1 cm	
•	(3) 10% water volume has bee	en removed	
	(4) 100 mm depth of water ha	s been removed from the soi	l water
41.	Drainage period of vegetables		
	(1) 1 day (2) 2 days	(3) 3 days	(4) I week
42.	Salinity problem can be contro	olled by	
	(1) Sub-surface drainage	(2) Surface drainage	
	(3) Diversion drain	(4) Tillage operation	•
43.	In soil, the available form of w	ater to the plant is	
	(1) Gravitational water	(2) Capillary water	40.0
	(3) Hygroscopic water	(4) Groundwater	
4.	Usually the salinity problem oc	curs in	
	(1) Sub-humid region	(2) Arid region	
	(3) Humid region	(4) Tropical region	
		(9)	
			(Turn Over)



45.	A centrifugal pump running 1450 RPM discharges 20 lps at 30 m total head. The specific speed of the pump will be						
	(1) 12	(2) 16		(3)	20	(4)	24
46.	Rate of water los known as	s from a short g	green	gras	ss which is no	ever sho	rt of water is
	(1) Consumptive	use	(2)	Evap	ootranspiratio	n	
	(3) Potential eva	potranspiration	(4)	Tran	spiration		10
47.	Which of the follo	owing crop is m	ost s	uscep	otible to water	r logging	g ?
	(1) Fruits		(2)	Veg	etables		
	(3) Field crops		(4)	Pad	dy		
48.	Drainage coeffici	ent is depth of w	vater	remo	oval from an a	rea with	in
	(1) 1 day	(2) 2 days		(3)	3 days	(4)	1 week
49.	The safe entrance	e velocity throug	jh a v	veli s	creen is		
	(1) 0.3 mm/sec	(2) 3 mm/sec		(3)	30 mm/sec	(4)	300 mm/sec
50.	An instrument u	sed for measure	emen	t of	Saturated hyd	Iraulic c	onductivity of
	(1) Permeamete	er	(2) Hy	drometer		
	(3) Conductivit	y bridge	{4) Ma	anometer		
			(1	0)			(Continued)



51.	Ratio of volume of water adde fer to the resulting change in vo	ed or removed directly from the saturated aqui- olume of aquifer below the water table is called
	(I) Apparent specific yield	(2) Specific yield
	(3) Storage coefficient	(4) Specific storage
52.	The imaginary line of the groundownward away from both side	ndwater table from which the water table slope to called as
	(1) Groundwater divide	
	(2) Drainage divide	
	(3) Boundary line of hydrologic	unit
	(4) None of the above	
53.	The well in which the water leve	el remains at the water table level are
	(1) Non-artesian wells	• • • • • • •
	(2) Flowing artesian well	
	(3) Non-flowing artesian well	*
	(4) Confined well	
54.	Keeping other factors constant, the discharge by	doubling diameter of tube well will increase
	(1) 11% (2) 25%	(3) 50% (4) 100%
		(11) (Turn Over)
	(



55. Uniformity coefficient, Cu for characterization of aquifer is							
	(1) d ₅₀ /d ₁₅	(2) d_{60}/d_{10}		(3)	d ₅₀ /d ₁₀	(4)	d ₇₀ /d ₃₀
56.		value of Gravel ;					
	(1) 4 to 12	(2) 15 to 30		(3)	40 to 60	(4)	60 to 70
57.	Leaky aquifer a	re	7.				
	(1) Semi-confi	ned aquifer	(2)	Con	fined aquifer		
	(3) Perched aq	uifer	(4)	Wat	ter table aquifer		
58.	Air rotary drilli	ng method is suit	able f	or th	e formation		
	(1) Consolidate	•	(2)	Unc	consolidated		
	(3) Sandy		(4)	Roc	ky or stoney		
59.	Drilling fluid is						
	(1) Water						
	(2) Mud-Water	mixed with bento	onite (clay			
	(3) Water plus	chemical					
	(4) Water mixe	d with cement					
			(12	(:)			(Continued)



60,	Cavity well is the			
	(1) Shallow well	(2) Arte	sian well	
	(3) Deep well	(4) Well	gallery	
61.	Over pumping of well dev	velopment is suital	ole for	
	(1) Deep tube well	(2) Shall	low tube well	**
	(3) Artesian well	(4) Skim	ming well	
62.	Improper well alignment	causes	•	
	(1) Well failure	(2) (4.4)		
	(2) Excessive wear and te	ar of turbine assen	ably	
	(3) Reduction in well-disc	harge		
	(4) High H.P. requirement	l		
63.	Mechanical incrustation r	efers to the	***************************************	•
	(1) Deposition of slims of	firon bacteria		
	(2) Deposition due to calc	ium carbonate		
	(3) Deposition of clay mat		strainer .	
	(4) Blockage of aquifer	· · · · · · · · · · · · · · · · · · ·	2.570	
		(13)	*	
			** em.	(Turn Over)



64.	Pumping test in the well is contin	nued	
	(1) Till steady state	(2) For 24 hours	
	(3) For 48 hours	(4) For 72 hours	Gr.
65.	Jacobs II method evaluate the par	rameters of	
	(1) Perched aquifer	(2) Confined aquifer	
	(3) Unconfined aquifer .	(4) Open well	•
6.	Theis method is used for evaluati	ing the parameters of	
	(1) Root zone	(2) Confined aquifer	
	(3) Unconfined aquifer	(4) perched aquifer	
7.	The most economical section of	grass water way is	
	(1) Parabolic	(2) Towards outlet	
	(3) Triangular	(4) Rectangular	
8.	Transportation of soil particles un	nder splash erosion will be	greater on
	(1) Level land surface	(2) Uniform sloppy land	
	(3) Irregular surface	(4) Level land without co	ver
59.	Soil detachment by raindrop is in	dependent of	•
	(1) Land slope (2) Soil type	(3) Soil depth	(4) Soil texture
		(14)	(Continued)



(1) About or equal to particle diameter (2) Less than 5 cm	
(3) Equal to 10 cm	
(4) None of the above	
71. Detachment and transportation of soil particle is greater in	0.70
(1) Splash erosion (2) Rill erosion	
(3) Sheet erosion (4) Both (2) & (3)	
72. On increment land slope 4 times the transportation of particle is incre	ased by
(1) 4 times (2) 8 times	•
(3) 16 times (4) 32 times	
3. The limit of slope length at which soil erosion begins is called as	
(1) Optimum slope length (2) Critical slope length	
(3) Allowable slope length (4) None of the above	
4. Erosion under shifting cultivation, deforestation cultivation on steep without protective measures is secretarily to	slopes
(1) Anthropogenic erosion (2) Phytogenic erosion	
(3) Zoogenic erosion (4) Extraction	
(15) (Turn	Over)



75. A soil composed of high silt content is

	(1) More erodible	(2) Least erodible	
	(3) Rarely erosive	(4) Least erosive	
6.	Erosion intensity of severe erosion	on is	
	(1) 5 m ³ /ha/y	(2) 15 to 50 m ³ /ha/y	
	(3) 10 m ³ /ha/y	(4) 0.5 m ³ /ha/y	
7.	Location of permanent gully con	trol structure is decided on basis of	
	(1) Gully depth	(2) Gully width	
	(3) Gully bed slope	(4) All above	
8.	The construction of dugout type where land slope is	e form pond is found suitable for the	ne area,
	(1) Less than 4%	(2) 10%	
	(3) 15%	(4) > 15%	
19.	For design of grassed way, per condition is taken as	nissible flow velocity for sparse gra	ss cover
	(1) 0.9 m/s to 1.2 m/s	(2) 1.5 m/s to 2.0 m/s	
	(3) 3.0 m/s to 4.5 m/s	(4) 1.0 m/s to 2.0 m/s	
		(16)	Continued



80.	Use of diversion drains is esse	ntial when
	(1) Specified part of catchmer	nt is to keep under protection
	(2) Protection of barren land i	s essential
	(3) Diversion of water into gui	lly is required
	(4) All above	
81.	Amongst the following, the m	ost effective measure for erosion and soil loss
	(1) Contour farming	(2) Strip cropping
	(3) Terracing and bunding	(4) Fertilizing
82.	Mulch tillage is practiced to mi	nimize
	(1) Moisture loss from soil	
	(2) Sediment yield from the fie	ld
	(3) Splash effect	11:01
	(4) Sheet erosion	
3.	When drop height exceeds 4 m farm pond, then most suitable m	and there is possibility of silt accumulation in echanical spillway to use is
	(1) Drop inlet spillway	(2) Straight drop spillway
	(3) Chute spillway	(4) Grassed waterway
		(17) (Turn Over)



84.	Soil loss phenomena is		
	(I) a dynamic	(2) a static event	
	(3) a cyclic event	(4) None of the above	•
85.	Factor-C of USLE is affected	by	
	(1) Land slope		Tie.
	(2) Slope length		
	(3) Soil properties		
	(4) Cropping pattern and mana	agment practices	
86.	The retaining walls are constru	ucted for the purpose of	
	(1) Maintaining unequal groun	nd level	
	(2) Controlling soil erosion fl	ows	
	(3) Supporting a soil mass		
	(4) Both (1) & (3)		
87.	A greater soil erosion is obser	ved in case of	
	(1) Soil surface covered by pla	ant canopy	
	(2) Soil surface under grass c	over	
	(3) Soil under forest cover		
	(4) Soil under cultivated crop		
		(18)	(Continued)



	(1) Splash, sheet, rill and gully	
	(2) Sheet, rill, raindrop and gully erosion	
	(3) Rill, sheet, splash and gully erosion	
	(4) Gully, splash, rill and sheet erosion	
89.	Gully formation is mainly due to	
	(1) Land surface without vegetative cover and over grazing	
	(2) Adoption of faulty tillage work	
	(3) Not checking of developed rills	
	(4) Improper construction of channels etc.	
0.	Revised universal soil loss equation (RUSLE) estimates	18
	(1) Average sediment yield	**
	(2) Average annual sediment yield	
	(3) Average annual soil erosion	
	(4) All of the above	•
	(19)	(2)
		(Turn Over)

88. The sequence of water erosion is



91.	Percolation ponds are designed based on the consideration of
	(1) Lesser water depth over larger spreading area
	(2) Lesser water depth over lesser spreading area
	(3) Greater water depth and lesser open surface area
	(4) Greater water depth and greater open surface area
92.	To ensure the hydraulic structure safe against sliding, the sum of all resisting forces should be equal to
	(1) 0.75 times the sum of horizontal forces
	(2) 1.5 times the sum of horizontal forces
	(3) Weight of structure
	(4) None of the above
93.	The thickness of apron/stilling basin is decided based on
	(1) Uplift pressure acting on it
	(2) Eccentricity of all forces
	(3) Frictional forces
	(4) None of the above
	(20) (Continued)



94	. Design of inlet section of dr	op structures is done by usin	g by
	(1) Weir formula	(2) Orifice formula	
	(3) Flume formula	(4). Darcy's formula	
95	Design of outlet section of p way so as to	ermanent gully control struc	tures is done in such
	(1) Create hydraulic jump	*.	
	(2) Dissipate max. K E of flow	wing water	1.
	(3) Get silt deposition in outl	et	
	(4) Both (1) & (2)		,
96.	A hydraulic structure is expensive when resultant of horizontal at		ating phenomenon,
	(1) Vertical downward	(2) Laterally	
	(3) Vertically upward	(4) None of the above	•••
7.	A set of connected parts that fo	ma whole is known as	
	(1) System		
	(3) Domain	(4) Mechanism	• • • • • • • • • • • • • • • • • • • •
		(21)	~
			(Turn Over)



98.	If the water reservoir is intende same year it is termed as	d to meet the low flow requirement	in the
	(1) Seasonal storage	(2) Intra-seasonal storage	
	(3) Perennial storage	(4) Carry over storage	
99.	Combined use of surface and grou	undwater in a canal command is terme	d as
	(1) Conjunctive use	(2) Integrated use	
	(3) Full water use	(4) Joint water use	
100.	The conduction of system prop	er at any time and place is represen	nted by
	(1) Objective	(2) State variable	
	(3) System parameter	(4) Decision variable	
101	. If the constraint is an inequity ra able is introduced named as	ther than equity, an additional decision	on vari-
	(1) Langrange multiplier	(2) Slack variable	
	(3) Decision variable	(4) Extended variable	
103	The simplex procedure is used to	o solve general maximization problem	in
104	(1) Dynamic programming	(2) Non-linear programming	
	(3) Linear programming	(4) Analog simulation	
		(22)	ontinued)



103. Reproducing the assence of	a system without reproducing th	e system itself is
(1) Simulation	(2) Forecasting	
(3) Prototype	(4) Systemization	
104. The benefits that can be quan	titively measured in monitory te	rms is called
(1) Intangible benefits	(2) Tangible benefits	
(3) Indirect benefit	(4) Project benefit	•
105. The rainfall during a season is	5	
(1) Deterministic event	(2) Stochastic event	
(3) Constrained event	(4) Static event	14
106. River flows are described as		
(1) Deterministic event	(2) Stochastic event	
(3) Constrained event	(4) Static event	
107. Iconic model means	The same of the sa	
(1) Ice like	(2) Look alike model	
(3) Formal model	(4) Stochastic model	
, 7 , 1 , 2 ,	6231	(T)
		(Turn Over)



108. Deterministic model make			
(1) Forecasts	(2) Predicts		
(3) Guess	(4) Detrimental decision		
109. Device to detect electro-magnetic	Device to detect electro-magnetic radiation are		
(1) Platforms	(2) Sensors		
(3) Detectors	(4) Satellites		
110. CAD stands for			
(1) Computer assisted drawing	(2) Computer aided design		
(3) Computer added data	(4) Computer assisted digitization		
111. Ground truth Information collect	ted at		
(1) Same site	(2) Same time		
(3) Same site and same time	(4) Same season		
112. Airphoto interpretation method on	predicts the groundwater availability	based	
(1) Soil density	(2) Formation characteristic		
(3) Features of top soil surface	(4) Vegetation		
	(24) (Con	ntinued)	



113. NDVI stands for	
(1) Numerical Digit Vegeta	ation Index
(2) Normalized Difference	Vegetation Index
(3) Numerical Digitization	Value Index
(4) Numerical Difference V	Value Indicator
114. Negative values of NDVI (v	alues approaching-I) correspond to
(1) Water	(2) Barren area
(3) Grassland	(4) Tropical rain forest
115. Satellite imagery consists of	f photographs of Earth or other planets made b
(1) Artificial satellites	(2) Acroplane
(3) Radar	(4) UFO
16. The pixel size of an image re being measured on the groun of view (IFOV) is known as	epresenting the size of the surface area (i.e., m²) d, determined by the sensors' instantaneous field
(1) Spectral resolution	(2) Spatial resolution
(3) Temporal resolution	(4) Radiometric resolution
	(25) (Turn Over)



117.	Spectroscopy is the study of the i	nteraction between
	(1) Matter and radiated energy	
	(2) Matters	
	(3) Energy sources	
	(4) Spectoral resolutions	
118.	The following is not related to el	
	(1) Gamma ray	(2) X-ray
	(3) Ultraviolet ray	(4) Electric ray
119.	Radar is a type of	
	(1) Active sensor	(2) Passive sensor
	(3) X-ray sensor	(4) Electric-ray sensor
120	An image with a ground resolute with surface area	tion of 10 meters shows no ground features
	(1) Smaller than 10×10 meters	
	(2) Greater than 10×10 meters	
	(3) Smaller than 10 square meter	rs
	(4) Greater than 10 square meter	rs
		(26) B500



ROUGH WORK एक कार्य



अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा उत्तर-पत्र के दोनों पृष्ठों पर केवल नीली या काली बाल-प्वाइंट पेन से ही लिखें)

- प्रश्न पुस्तिका मिलने के 30 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई प्रश्न छूटा नहीं है । पुस्तिका दोषयुक्त पाये जाने पर इसकी सूचना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण प्रश्नपत्र की दूसरी पुस्तिका प्राप्त कर लें ।
- परीक्षा भचन में लिफाफा रहित प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लायें।
- उत्तर-पत्र अलग मे दिया गया है । इसे न तो मोई और न ही विकृत करें । दूसरा उत्तर-पत्र नहीं दिया
 आयेगा, केवल उत्तर-पत्र का ही मूल्यांकन किया जायेगा !
- अपना अनुक्रमांक तथा उत्तर-पत्र का क्रमांक प्रथम आवरण-पृष्ठ पर पेन से निर्धारित स्थान पर लिखें ।
- उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये वृत्तों को गाड़ा कर दें / जहाँ – जहाँ आवश्यक हो वहाँ प्रश्न – पुस्तिका का क्रमांक तथा सेट का नम्बर उचित स्थानों पर लिखें ।
- 6. ओ॰ एम॰ आर॰ पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यदि कोई हो) तथा प्रश्न-पुस्तिका पर अनुक्रमांक संख्या और ओ॰ एम॰ आर॰ पत्र संख्या की प्रविष्टियों में उपरिलेखन की अनुमित नहीं है ।
- उपर्युक्त प्रविष्टियों में कोई भी परिवर्तन कक्ष निरीक्षक द्वारा प्रमाणित होना चाहिये अन्यथा यह एक अनुचित साधन का प्रयोग माना जायेगा।
- 8. प्रश्न-पुस्तिका में प्रत्येक प्रश्न के चार वैकल्पिक उत्तर दिये गये हैं । प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आपको उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को उत्तर-पत्र के प्रथम पृष्ठ पर दिये गये निर्देशों के अनुसार पेन से गादा करना है ।
- प्रत्येक प्रश्न के उत्तर के लिये केवल एक ही वृत्त को गाढ़ा करें। एक से अधिक वृत्तों को गाढ़ा करने पर अथवा
 एक वृत्त को अपूर्ण भरने पर वह उत्तर गलत माना जायेगा।
- 10. ब्यान दें कि एक बार स्याही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न का उत्तर नहीं देना चाहते हैं, तो सम्बन्धित पंक्ति के सामने दिये गये सभी वृत्तों को खाली छोड़ दें। ऐसे प्रश्नों पर शून्य अंक दिये जारेंगे।
- 11. एफ कार्य के लिये प्रश्न-पुस्तिका के मुखपृष्ठ के अन्दर वाले पृष्ठ तथा अंतिम पृष्ठ का प्रयोग करें ।
- 12. परीक्षा के उपरान्त केवल और एमः आर. उत्तर-पत्र परीक्षा भवन में जमा कर दें।
- 13. परीक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुमति नहीं होगी।
- यदि कोई अध्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वारा निर्धारित दंड का/की, भागी होगा/होगी ।



