

Set No. 1	18P/289/25	343
Total No. of Printed Pages : 28	3	Question Booklet No
(To be fill	led up by the candidate by blue/blo	ick ball-point pen)
Roll No.		
Roll No. (Write the digits in word	s) (2018)	
Serial No. of OMR Answer She	eet	
Centre Code No.		
Day and Date		(Signature of Invigilator)

#### INSTRUCTIONS TO CANDIDATES

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

- 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 parer, written of blank, inside the framination Hall except the Admit Card.
- A separate OMR Answer Sheet is given. It should not be folded or mutilated. A second OMR Answer
  Sheet shall not be provided. Only the OMR Answer Sheet will be evaluated.
- 4. Write all the entries by bue/black ball per in the space provided above.
- On the front page of the OMR Answer Steet, write by pen your Roll Number in the space provided at the top, and by darkening the circles at the bottom. Also, write the Question Booklet Number, Centre Code Number and the Set Number (wherever applicable) in appropriate places.
- 6. No overwriting is allowed in the entries of Roll No., Question Booklet No. and Set No. (if any) or OMR Answer Sheet and also Roll No. and OMR Answer Sheet Serial No. on the Question Booklet
- 7 Any change in the aforesaid entries is to be vermed 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 OMR Answer Sheet by darkening the appropriate circle in the incresponding row of the OMR Answer Sheet, by ball-point pen as mentioned in the guidelines given in the first page of the OMR Answer Sheet.
- For each question, darken only one circle on the OMR Answer Sheet. If you darken more than one
  circle or darken a circle partially, the answer will be treated as incorrect.
- O Note that the answer once filled in ink cannot be changed. If you do not wish to attempt a question.
  The vertical the circles in the corresponding row blank (such question will be awarded zero mark).
- For rough work, use the inner back page of the title cover and the blank page at the end of this Booklet
- 2 on completion of the Test, the Candidate must handover the OMR Answer Sheet to the Invigilator the examination room/hall. However, candidates are allowed to take away Text Booklet and copy OMR Answer Sheet with them.
- 3 ....distates are not permitted to leave the Examination Hall until the end of the Test.
- \* It a candidate attempts to use any form of unfair means, he/she shall be liable to such punishment as the University may determine and impose on him/her.
- ंन जेरेक फेर्ना व अन्तिन आवरण-पृष्ठ पर दिये गए हैं।



#### No. of Questions: 120

Time: 2 Hours

Note:

- (1) Attempt as many questions as you can. Each question carries 3 marks.
  One mark will be deducted for each incorrect answer. Zero mark will be awarded for each unattempted question.
- (2) If more than one alternative answers seem to be approximate to the correct answer, choose the closest one.
- Determine the water horsepower of a pump discharging at a rate of 10 lps against a total head of 25 m
  - (1) 2
- (2) 2.5
- (3) 3.3
- (4) 5
- 2. A plot between rainfall intensity versus time is called as
  - (1) Hydrograph
- (2) Mass curve
- (3) Hyetograph
- (4) Isohyet

- 3. NDVI refers to
  - (1) National Digit Verification Index
  - (2) Normalised Difference Vegetable Index
  - (3) Normalized Digitization Value Index
  - (4) Numerical Difference Value Index

(P.T.O.)

#### SPACE FOR ROUGH WORK एफ कार्य के लिए जगह



4.	Pressure plate apparatus is used for up to	ne measurement of soil me	oisture tension
	(1) 10 bars (2) 15 bars	(3) 50 bars (4) 10	0 bars
5.	To calculate the mean of the four of adopt	ervations of 2, 3, 4 and	20, one should
	(1) Arithmetic Mean	(2) Geometric Mean	
	(3) Harmonic Mean	(4) Weighted Mean	
6.	Infiltration is measured by		
	(1) USWB Class A pan	(2) rain gauge	
	(3) cylindrical metal rings	(4) lysimeter	
7.	Which one of the following is the stream velocity?	ost accurate instrument	for measuring
	(1) Surface float	(2) H-flume	
	(3) Coshocton wheel	(4) Current meter	
8.	A unit hydrograph consists of one t	it of	
	(1) surface hydrograph	(2) flood hydrograph	
	(3) unit hydrograph	4) direct runoff	
9.	Confined aquifer is also known as		
	(1) water table aquifer	2) artesian aquifer	
	(3) semi-confined aquifer	4) perched aquifer	
(34)	2		



10.	A well installed in confined aquifer	always contains		
	(1) higher water level than static w	ater table		
	(2) lower water table than static wa	ater table		
	(3) same water level as static water table			
	(1) does not yield water all			
11.	The useful moisture of a soil is equ	al to its		
	(1) field capacity			
	(2) saturation capacity			
	(3) moisture content at permanent	wilting point		
	(4) difference between field capacity root zone of plants	and permanent wilting point within	the	
12.	Irrigation water having an SAR valu	e of 20 is called as		
	(1) very high sodium water	(2) high sodium water		
	(3) medium sodium water	(4) low sodium water		
13.	Sum of all allocated benefits of a wat the project is known as	er resources project divided by total co	st of	
	(1) Benefit-Cost Ratio	(2) Cost-Benefit Ratio		
	(3) Project Cost Index	(4) Project Benefit Index		
14.	Unit of runoff coefficient in the rati	onal formula is		
	(1) dimensionless	(2) mm		
	(3) cm	(4) m		
34)	3	(P.	T.O.)	



15.	The plants start experiencing severe was unavailability of water i.e., 'physiological dra corresponds to electric conductivity of soil of	aught at about 1 our
	(1) 1·44 dS/m (2) 3·00 dS/m (3) 4·0	0 dS/m (4) 14·4 dS/m
16.	6. The soil having electric conductivity less that exchangeable sodium percentage more than USDA Salinity Laboratory Classification)	n 4 dS/m, pH more than 8-5 and 15 falls in the category of (as per
	(1) saline soil (2) soc	lic soil
	(3) saline alkali sodic soil (4) noi	rmal soil
17.	7. A cross regulator is provided on a main car	nal
	(1) to minimize the amount of silt entering	the branch canal
	(2) to let maximum silt is carried into the	branch canal
	(3) for maintaining head in upstream canal	
	(4) to carry the canal across the drain	
18.	8. The cumulative infiltration equation is $I = 2$ instantaneous infiltration rate at 4 minutes	
	(1) 0·1 cm/min (2) 0·5 cm/min (3) 1·3	cm/min (4) 2·0 cm/min
19.	9. General assumption made to study the med	chanics of sediment transport is
	(1) soil is incoherent $(c = 0)$ (2) soi	l is coherent
	(3) $c > 1$ (4) $c =$	1
34)	4	



<i>20</i> .	Flow in an irrigation channel is cor	isidered as	
	(1) gradually varied	(2) spatially varied	
	(3) rapidly varied	(4) uniform	
21.	Rational formula is used to determi	ne	
	(1) peak rate of runoff		
	(2) average rate of runoff		
	(3) peak rate of runoff and time to	peak	
	(4) average rate of runoff and time	lag	
22.	Determination of Exchangeable Sodiu	m Percentage (ESP) is done by mea	asuring
	(1) soil pH	(2) soil EC	
	(3) soil bulk density	(4) soil hydraulic conductivity	
23.	Surge irrigation refers to		
	(1) applying total water quickly and	in one go	
	(2) applying water in several wetting	g and drying cycles	
	(3) quickly flushing out standing wa	ater from field	
	(4) applying water slowly but contin	uously	
24.	The cross-slope ditch system of drain	nage is used for drainage of	
	(1) flat land	(2) ponded land	
	(3) sloping land	(4) None of the above	
34)	5		(P.T.O.)



25.	Cipolettie weir has	side slopes of			
	(1) 1:4	(2) 4:1	(3)	1:2	(4) 2:1
26.	Watershed shape i	is evaluated by			
	(1) form factor		(2)	compactness	factor
	(3) stream density	,	(4)	shape index	
27.	The best means for	or chemigation of	micr	onutrients is	
	(1) raingun		(2)	drip system	
	(3) foggers		(4)	sprinkler sys	tem
28.	Froude number is	the ratio of the			
	(1) inertial force to	o the shear force			
	(2) inertial force to	o the viscous force	e		
	(3) inertial force t	o the gravitationa	l for	ce	
	(4) viscous force t				
29.	The system of line	ear equations has			
		X + 2Y			
		3X + 6	Y = 8	3	
	(1) unique solution	n	(2)	many solutio	ns

(4) No solution

(34)

(3) imaginary solution



30.	60 milliwatt per square centimetre. If the conversion efficiency is 5%, the output power will be
	(1) 360 watts (2) 180 watts (3) 100 watts (4) 3600 watts
31.	At critical condition of flow
	(1) specific energy is minimum
	(2) specific force is maximum
	(3) viscous force is minimum
	(4) total force is maximum
32.	Well development refers to
	(1) removal of well incrustation
	(2) removal of fine particles from around the well screen
	(3) well testing
	(4) increasing well discharge
33.	Intermediate stage between sheet erosion and gully erosion is called as
	(1) path erosion (2) rill erosion
	(3) micro-erosion (4) severe erosion
34.	Deterministic model makes
	(1) forecast (2) prediction
	(3) guess (4) detrimental decision
34)	7 (P.T.O.)



35.	Application of fertilizers with irrigati	on is called
	(1) fertilization	(2) fertigation
	(3) ferti-irrigation	(4) irri-fertigation
36.	Cut throat flume is used for measu	ring
	(1) air flow	(2) water flow
	(3) flow of granular material	(4) None of the above
37.	The Glover-Dumm equation is partic	ularly used to calculate the drain spacing
	(1) humid areas	(2) irrigated areas
	(3) dry areas	(4) sloping areas
38.	The quick sand condition is created	due to
	(1) frictionless nature of soil	
	(2) low value of cohesion soil	
	(3) upward seepage force greater that	an submerged weight of soil
	(4) downward seepage pressure	
39.	Particle density and bulk density of a ratio will be	soil are 2.8 g/cm3 and 1.4 g/cm3, its void
	(1) 0.5 (2) 1.0	(3) 2.4 (4) 4.2
34)	. 8	



40.	The Thiessen polygon is		
	(1) a polygon obtained by joining a	adjoining rain gauge stations	
	(2) a representative area used for we	eighing the observed station precipi	tation
	(3) an area used in the construction	on of depth-area curves	
	(4) the descriptive term for the sha	ape of the hydrograph	
41.	Area under a hydrograph represent	ts	
	(1) volume of runoff	(2) volume of rainfall	
	(3) area of watershed	(4) average rate of runoff	
42.	Ground water recharge by surface	flooding is primarily governed by	
	(1) infiltration rate		
	(2) aquifer transmissibility		
	(3) aquifer storage coefficient		
	(4) saturated hydraulic conductivity	y	
43.	The conveyance of an open channe	el is directly proportional to	
	(1) bed slope	(2) channel roughness	
	(3) discharge	(4) side slope	
44.	Which of the term is not related to	drip irrigation system?	
	(1) Venturi (2) Grommet	(3) End plug (4) Mole	
(34)	g	)	(P.T.O.)



45.	Soil erosion intens	sity is expressed in	1			
	(1) $m^3/ha$	(2) $m^3/ha/y$	(3)	cm/y	(4)	cm/ha/y
46.	A field measuring 6 cumec of water v	30 hectares, 40 cm was applied for 8 ho	of w	ater was stored What will be ap	l in plic	the root zone when ation efficiency?
	(1) 70%	(2) 75%	(3)	69.44%	(4)	80%
47.	Warabandi, Shejp distribution to acl	ali and Osrabandi hieve	are	the systems of	rota	ational canal water
	(1) need based in	rigation				
	(2) better uniform	ity in water applic	catio	n		
	(3) better equity i	n water distribution	on			
	(4) better recovery	y of water charges				
48.	If D <sub>60</sub> /D <sub>10</sub> of a so	oil is 1, the soil is	con	sidered as		
	(1) loose		(2)	compact		
	(3) well graded		(4)	uniform grade	d	
49.	Those crops which in a soil salinity i	do not show any anging between 4	signi -8 d	ficant effect on S/m are called	the	ir growth and yield
	(1) sensitive crops	S	(2)	semi-tolerant	crop	os
	(3) tolerant crops		(4)	highly toleran	t cro	ops
50.	The process of wa	ter erosion follows	3			
	(1) splash, sheet,	rill, gully	(2)	gully, sheet, r	ill, s	splash
	(3) rill, sheet, spl	ash, gully	(4)	sheet, rill, spl	ash,	, gully
(34)		10	)			



	(1) Geological Information System			
	(2) Geographical Information System			
	(3) Geometrical Information System	(3) Geometrical Information System		
	(4) Geographical Information Science			
52.	. RUSLE (Revised Universal Soil Loss Equa	tion) estimates		
	(1) long-term annual soil erosion			
	(2) long-term average annual sediment yie	eld		
	(3) average sediment yield			
	(4) None of the above			
53.	. The simplex procedure is used to solve ge	eneral maximization problem in		
	(1) Linear Programming (2) I	Dynamic Programming		
	(3) Analog Simulation (4) 2	Zero-one Programming		
54.	Evapotranspiration of a crop on a particul coefficient is 0.8. What is the net irrigation 80%?	ar day is 4 mm, the concerned crop requirement if irrigation efficiency is		
	(1) 3·2 mm (2) 4·0 mm (3) 5	5·0 mm (4) 6·25 mm		
55.	. Removal of a thin and fairly uniform layer runoff water is called	of the soil from the land surface by		
	(1) Torrent erosion (2) S	Sheet erosion		
	(3) Glacial erosion (4)	Geologic erosion		
34)	11	(P.T.O.)		

51. GIS refers to



56.	In a land leveling operation cut: fil	ll ratio is kept
	(1) $C/F = 0$ (2) $C/F = 1$	(3) $C/F < 1$ (4) $C/F > 1$
57.	Darcy's law is valid under condition	n of
	(1) laminar flow with Reynold's nur	mber > 10
	(2) Reynold's number < 1	
	(3) Newtonian flow	
	(4) steady uniform flow	
58.	Coefficient of storage is a property	of
	(1) confined aquifer	(2) unconfined aquifer
	(3) semi-confined aquifer	(4) None of the above
59.	Tensiometer can effectively measure	soil moisture tension in the range of
	(1) 0.0 to 1 atm	(2) 0 to 15 atm
	(3) < 0 · 8 atm	(4) 15 to 33 atm
60.	An S curve in hydrology is obtained	by summing ·
	(1) rainfall (2) snowmelts	(3) runoff (4) evaporation
61.	Pumps used in surface drainage wo	rks are of the type
	(1) centrifugal (2) reciprocating	(3) axial flow (4) treadle
(34)	10	
(34)	12	



62.	Drainage at a rate of 1.0 lps per hecta	are is equivalent to a drainage coefficient of		
	(1) 1.00 mm/day	(2) 4·32 mm/day		
	(3) 8:64 mm/day	(4) 10·00 mm/day		
63.	The fluids that do not undergo straistress are called	in rates proportional to the applied shear		
	(1) Newtonian fluids	(2) non-Newtonian fluids		
	(3) compressible fluids	(4) non-compressible fluids		
64.	From the hydraulic efficiency point of open channel is	view, the most efficient cross-section of an		
	(1) semi-circular	(2) parabolic		
	(3) trapezoidal	(4) rectangular		
65.	Hydrologic Soil Group-A stands for			
	(1) low runoff potential			
	(2) moderately low runoff potential			
	(3) moderately high runoff potential			
	(4) high runoff potential			
66.	Venturi used for doing fertigation in following theorem	n mico-irrigation system working on the		
	(1) Kennedy's (2) Khosla's	(3) Bernoulli's (4) Jones		
34)	13	(P.T.O.)		



67.	Retaining walls are constructed for the purpose of			
	(1) maintaining grade in ground level			
	(2) controlling soil erosion loss			
	(3) supporting a soil mass			
	(4) storing water behind it			
68.	Hydraulic drop takes place when flow passes from			
	(1) super-critical to sub-critical stage			
	(2) sub-critical to super-critical stage			
	(3) critical to super-critical stage			
	(4) sub-critical to critical stage			
69.	Water storage structure in canal commands to meet water requirement of cr when canal water is not available is called			
	(1) carry over storage reservoir			
	(2) seasonal storage reservoir			
	(3) intra-seasonal water storage reservoir			
	(4) balancing reservoir			
70.	Salinity problem can be controlled by			
	(1) surface drainage (2) subsurface drainage			
	(3) deep tillage operations (4) diversion drain			
(34)	14.			



71.	Mathematical equation used to describe saturated-unsaturated flow of water in drip irrigation			
	(1) Richard equation	(2) Continuity equation		
	(3) Bernoulli's theorem	(4) Laplace equation		
72.	The line joining the static water lever confined aquifer, is known as the	els in several wells, excavated through a		
	(1) cone of depression	(2) piezometric surface		
	(3) perched water table	(4) hypsometric curve		
73.		ity of a soil is 1 m/day, the rate of water ea 100 m long and 1 m height under a unit		
	(1) 10 m <sup>3</sup> /day (2) 100 m <sup>3</sup> /day	(3) 1 m <sup>3</sup> /day (4) 1000 m <sup>3</sup> /day		
74.	In a wide open channel, the hydrau	lic radius is practically equal to		
	(1) flow depth	(2) flow area		
	(3) flow width	(4) wetted perimeter		
75.	The time of concentration of a watershed is proportional to			
	(1) $L^{1.77}$ (2) $S^{-0.385}$	(3) $L^{1.77}S^{0.385}$ (4) $S^{0.385}$		
76.	. Land use capability classification is primarily based on			
	(1) soil texture	(2) rainfall		
	(3) groundwater	(4) land slope		
34)		5 (P.T.O.)		



77	A foot valve is used in a centrifugal pumping system so as to					
	(1) keep it primed					
	(2) measure the flow					
	(3) give strength at its foot					
	(4) control water flow in to pumping system					
78.	The most commonly used method for land grading calculations is					
	(1) four-point method (2) summation method					
	(3) method of least squares (4) leveling index					
79.	PIM refers to					
	(1) Program of Integrated Management					
	(2) Participatory Irrigation Management					
	(3) Pressure Irrigation Management					
	(4) Private Irrigation Management					
80.	Lands having slopes of more than 10 per cent should be cultivated only after making					
	(1) contour trenches (2) contour benches					
	(3) broad-based terraces (4) bench terraces					
81.	If the diameter of a pipe is halved, flow of water in it experiences the increase in the head loss due to friction is					
	(1) two times (2) four times (3) ten times (4) sixteen times					
(34)	16					



82.	A linear reservoir	is one in which			
	(1) volume varies linearly with elevation				
	(2) the storage va	aries linearly with	the outflow rate		
	(3) the storage varies linearly with time				
	(4) the storage va	aries linearly with	the inflow rate		
83.	canopy factor of C		gated in one hour.	d at 5 m × 4 m with a Calculate the minimum	
	(1) 4 lps	(2) 5 lps	(3) 8 lps	(4) 10 lps	
84.	Subsurface drains	s remove			
	(1) excess surface	e water			
	(2) capillary subsurface water				
	(3) subsurface gravitational water				
	(4) excess runoff water from rainfall				
85.				water is 0.2 mmhos/cm ment will be equal to	
	(1) 80%	(2) 40%	(3) 50%	(4) 20%	
86.	A circular shaped	watershed has a	Form Factor of		
	(1) 1	(2) 3.14	(3) 1.57	(4) 0.78	
34)		1	7	(P.T.O.)	



(34)

87.	The rate of the flow of water throug	h gr	ound strata, can be estimated by
	(1) Manning's formula	(2)	Strickler's formula
	(3) Dupuit's formula	(4)	Darcy's formula
00	Desirable water is		
88.	Drainable water is		
	(1) hygroscopic water	(2)	capillary water
	(3) perched water	(4)	gravitational water
89.	When a canal is carried over a natural is called	ıl dra	ain at crossing, the structure provided
	(1) syphon	(2)	aqueduct
	(3) super passage	(4)	level crossing
90.	The ratio of volume of pores to the	volu	me of solid content is called
	(1) void ratio	(2)	porosity
	(3) dry bulk density	(4)	wet bulk density
91.	Gypsum can be used to reclaim		
	(1) alkali soils		
	(2) sodic saline soils		
	(3) acidic soils		
	(4) can not be used for reclamation		

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	surface result in	2	
	(1) decreased erosion		
	(2) increased erosion		
	(3) erodibility remains unchanged		
	(4) erosion becomes zero		
93.	For vertical cut, the width $(W)$ of bendand $S$ is the field slope	ch terrace is when D is the vertical	interval
	(1) $W = (D \cdot S)/100$	(2) $W = (100S)/D$	
	(3) $W = 100/S$	(4) $W = S/100$	
94.	Frequency-domain Reflectometry (FD	(R) is the method of monitoring	
	(1) soil moisture	(2) salt concentration	
	(3) vapour pressure	(4) solar radiation	
95.	A drop spillway is used for		
	(1) erosion control	(2) flow measurement	
	(3) flow diversion	(4) flow regulation	
96.	Small watersheds are those, in which	ch	
	(1) runoff is major flow		
	(2) overland flow is major flow		
	(3) base flow is major flow		
	(4) All of the above		
(34)	19		(P.T.O.,

92. Soils becoming waterlogged accompanied by accumulation of salts on the



97.	the upstream flow being supercritical and downstream flow being subcritical are called as				
	(1) hydraulic jump depths	(2) conjugate depths			
	(3) consequent depths	(4) complimentary depths			
98.	8. The velocity head in the case of fluid flow is the				
	(1) kinetic energy per unit are	a			
	(2) kinetic energy per unit flow	w area			
	(3) kinetic energy per unit we	ght			
	(4) kinetic energy per unit tim	e			
99. Rivers meander but manmade canals do not, why					
	(1) straight canals look good				
	(2) general slope of earth surface is too high to sustain uniform flow				
	(3) rivers are made by almighty to cover large area				
	(4) rivers do not like to run st	raight			
100.	<ol> <li>An aquifer bounded by a partially pervious layer and below by a layer that either impervious or partially pervious is called</li> </ol>				
	(1) confined aquifer	(2) semi-confined aquifer			
	(3) unconfined aquifer	(4) perched aquifer			
(34)		20			



	(1) do not have strainers and water enters from bottom only				
	(2) do not have strainers and water enters from top only				
	(3) have strainers and water enters from both bottom and sides				
	(4) do not have strainers and water enters from both bottom and sides				
102.	The benefit that can be quantitatively measured in monetary terms is called				
	(1) intangible benefit (2) tangible benefit				
	(3) project benefit (4) indirect benefit				
103.	Relationship between discharge and depth of flow in an open channel is unique when				
	(1) Froude's number = 1 (2) Reynold's number = 1				
	(3) Poisson's number = 1 (4) Mach number = 1				
104.	If two centrifugal pumps of discharge capacities of 10 lps with discharge head of 5 m each are operating in series, we may expect				
	(1) discharge of 20 lps with discharge head of 10 m				
	(2) discharge of 20 lps with discharge head of 5 m				
	(3) discharge of 10 lps with discharge head of 10 m				
	(4) discharge of 10 lps with discharge head of 5 m				
105.	Isobath maps indicate				
	(1) areas affected by high water table problems				
	(2) flow of water				
	(3) extent of salinity				
	(4) line joining places having equal depth of water				
(34)	21 (P.T.O.)				

101. Cavity wells with blind pipe



106.	Anisotropicity of a soil is determined from directional difference in					
	(1) soil texture					
	(2) soil structure					
	(3) infiltration rate					
	(4) saturated hydraulic conductivity					
107.	Curve number represents					
	(1) rainfall property	(2) watershed feature				
	(3) runoff trend	(4) stream flow				
108.	Annual maximum floods are most l	likely to fit in				
	(1) Normal distribution	(2) Beta distribution				
	(3) Gamma distribution	(4) Gumbel distribution				
109.	In turbine pump, the impeller is surrounded by					
	(1) plunger	(2) diffuser vanes				
	(3) volute casing	(4) pump bowl				
110.	The quantity $n$ as used in Manning	g's formula				
	(1) is considered dimensionless	(2) has the dimension of L				
	(3) has the dimension of $L^{1/3}$	(4) has the dimension of $L^{1/6}$				
111.	10 cm of irrigation is applied to a field. 1 cm goes as runoff loss and 2 cm goes as percolation loss. The application efficiency is					
	(1) 90% (2) 80%	(3) 70% (4) 60%				
(34)	22	2				



	(1) reduced discharge from the tube well					
		(2) excessive discharge of sand with water				
	(3) discharge of highly alkaline water					
	(4) more noise of pump					
113.	If $V$ is the velocity and $I$ is the the dimensions of $K$ can be d	hydraulic gradier	it, then in the relation $V = KI$ .			
	(1) $LT^{-1}$ (2) $T^{-1}$	(3) $L^2T^2$	(4) dimensionless			
114.	A practical method of reducin	g sheet erosion fr	om sloping lands is			
	(1) keeping the land fallow					
	(2) farming on contour strips					
	(3) construction of small reser	(3) construction of small reservoirs				
	(4) using plastic sheet covers					
115.	Maximum energy use in irriga	ted crop cultivation	on is in			
	(1) tillage	(2) irrigation	on			
	(3) harvesting	(4) sowing	/planting			
116.	Effect of climate change is sho	owing				
	(1) increased number of rain	events				
	(2) increased rain intensity an	nd decreased num	ber of rain events			
	(3) decreased rain intensity					
	(4) decreased rain intensity ar	nd increased num	ber of events			
34)		23	(P.T.O.)			

112. Corrosion of tube well pipes may cause



117.	Groundwater contamination from non	-point source poll	llution is caused by	/				
	(1) leaching of nutrients and pesticides							
	(2) groundwater exploitation							
	(3) aquifer rock weathering							
	(4) climate change							
118.	Bulking of soil refers to its increase i	in volume due to						
	(1) ploughing (2) freezing	(3) wetting	(4) drying					
119.	The numerical value of hydraulic exprectangular channel is	onent for critical	flow computation i	n a				
	(1) 3 (2) 1	(3) zero	(4) 2					
120.	Dugwells in hard rock region can be made to yield more water by  (1) managing pumping and recovery times  (2) pumping after full recuperation  (3) making the well circular							
	(4) cleaning the well							
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#### SPACE FOR ROUGH WORK रफ़ कार्य के लिए जगह



#### अभ्यर्थियों के लिए निर्देश

(इस पुस्तिका के प्रथम आवरण-पृष्ठ पर तथा ओ॰एम॰आर॰ उत्तर-पत्र के दोनों पृष्टों पर केवल नीली/काली बाल-प्वाइंट पेन से ही लिखें)

- प्रत-पुस्तिका मिलने के 30 मिनट के अन्दर ही देख लें कि प्रश्नपत्र में सभी पृष्ठ मौजूद हैं और कोई पृष्ठ या प्रत्य हैं। पुस्तिका दोषयुक्त पाये जाने पर इसकी स्चना तत्काल कक्ष-निरीक्षक को देकर सम्पूर्ण पश्नपत्र की दूसर पुस्तिका प्राप्त कर लें।
- 2. परोक्षा भवन में प्रवेश-पत्र के अतिरिक्त, लिखा या सादा कोई भी खुला कागज साथ में न लावं।
- 3. ओ॰एम॰आर॰ उत्तर-पत्र अलग से दिया गया है। इसे न तो मोड़ें और न ही विकृत करें। दूसरा ओ॰एम॰आर॰ उत्तर पत्र नहीं दिया जायेगा। केवल ओ॰एम॰आर॰ उत्तर-पत्र का ही मृल्यांकन किया जायेगा।
- मंदी प्रविष्टियाँ प्रथम आवरण-पृष्ठ पर नीली/काली बाल पेन से निर्धारित स्थान पर लिखें।
- 5. ओल्मि०आर० उत्तर-पत्र के प्रथम पृष्ठ पर पेन से अपना अनुक्रमांक निर्धारित स्थान पर लिखें तथा नीचे दिये जना को गाड़ा कर दें। जहाँ जहाँ आवश्यक हो वहाँ प्रश्न-पुस्तिका का क्रमांक एवं केन्द्र कोड नम्बर तथा सेट का नाया उचित स्थानों पर लिखें।
- 6. ंग्रेशमध्आरः उत्तर-पत्र पर अनुक्रमांक संख्या, प्रश्न-पुस्तिका संख्या व सेट संख्या (यटि कर्ष हो। नदा पर-पुरितकः पर अनुक्रमांक संग् और ओल्एमण्झारण उत्तर-पत्र संग् की प्रविष्टियों से उपस्लिखन की अनुस्ति कर ग
- पर्युक्त प्रविधियों में कोई भी परिवर्तन कक्ष निगेक्षण द्वारा प्रमाणित होना चाहिए जन्यपा १८ ५० छन्। प्रमाणित ।
   प्रयोग भाना जायेगा।
- 8. अस-पृथ्लिका में प्रत्येक प्रथ्न के चार वैकल्पिक उत्तर दिये गये हैं। प्रत्येक प्रश्न के वैकल्पिक उत्तर के लिये आपको ओलएमलआरल उत्तर-पत्र की सम्बन्धित पंक्ति के सामने दिये गये वृत्त को ओलएमलआरल उत्तर-पत्र के प्रथम पत्र पर दिये गये निर्देशों के अनुसार पेन से गाड़ा करना है।
- पत्येक पश्न के उत्तर के लिये केवल एक ही वृत्त की गाढ़ा करें। एक से अधिक वृत्ती का गाल करत कर .....
   एक वृत्त की अपूर्ण भरते पर वह उत्तर गलत माना जायेगा।
- 10. ध्यान दें कि एक बार स्थाही द्वारा अंकित उत्तर बदला नहीं जा सकता है। यदि आप किसी प्रश्न के उत्तर नहीं देना चारण हैं, तो सम्बन्धित पंक्ति के सामने दिये गये सभी घुनों का खाली छोड़ दें। ऐसे प्रश्नों पर शून्य बच्छ दिय जलता.
- 11 रफ कार्य के लिये प्रश्न-प्रतिका के मुख्यपृष्ठ के अन्दर वाले पृष्ठ तथा अंतिम पृष्ठ का प्रयोग कर,
- 12: 'मीजा की समाप्ति के बाद अभ्यर्थी अपना ओ०एम०आग्० उत्तर-पत्र प्रगीक्षा कक्ष/हाल में कक्ष निर्मातक को सांच दे अपने माथ प्रश्न-पुस्तिका तथा ओ०एम०आग्० उत्तर-पत्र की प्रति ले जा सकते हैं।
- परोक्षा समाप्त होने से पहले परीक्षा भवन से बाहर जाने की अनुपति नहीं होगी।
- यदि कोई अभ्यर्थी परीक्षा में अनुचित साधनों का प्रयोग करता है, तो वह विश्वविद्यालय द्वाग निर्धाणित दंड का की, का होगा/होगी।

