Program: BE --CIVIL Engineering

Curriculum Scheme: Revised 2012

Examination: Final Year BE

Course Code: CEE804 and Course Name: Design of Hydraulic Structures

Time: 1 hour Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	The capacity of a storage reservoir can be decided using
Option A:	The mass curve inflow
Option B:	The mass curve outflow
Option C:	Both mass curve inflow and outflow
Option D:	Characteristic curve
Q2.	The 'Useful storage' in a Dam reservoir is the volume of water stored in between
Option A:	Minimum and maximum reservoir levels
Option B:	Minimum and normal reservoir levels
Option C:	Normal and maximum reservoir levels
Option D:	Only maximum reservoir level
Q3.	Which reservoir is also known as Mitigation reservoir?
Option A:	Conservation reservoir
Option B:	Flood control reservoir
Option C:	Multipurpose dam
Option D:	Storage reservoir
Q4.	Yield of a reservoir represents _____
Option A:	the inflow into the reservoir
Option B:	the capacity of the reservoir
Option C:	the outflow demand on the reservoir
Option D:	the optimum value of catchment yield
Q5.	A _____ dam is generally called as a weir or barrage.
Option A:	storage dam
Option B:	Detention dam
Option C:	Diversion dam
Option D:	Rigid dam
Q6.	The provision of drainage gallery in a gravity dam helps in reducing _____
Option A:	seepage pressure

Option B:	Hydrostatic pressure
Option C:	Silt pressure
Option D:	Both hydrostatic and seepage pressure
Q7.	The vertical component of the earthquake wave which produces adverse effects on the stability of a dam when is acting in _____
Option A:	Upward direction
Option B:	Downword direction
Option C:	Both upward and downword direction
Option D:	Any direction
Q8.	In a concrete gravity dam with a vertical upstream face; the stabilizing force provided by the
Option A:	Weight of the dam
Option B:	The water supported against the upstream slope
Option C:	Both weight of dam and water against the upstream slope
Option D:	Temperature variation
Q9.	The base width of rock filled dam in comparison with that an earthen dam is
Option A:	Much larger
Option B:	Almost equal
Option C:	Sometimes smaller sometime larger
Option D:	Much smaller
Q10.	The most economical arch dam in general use is
Option A:	Constant radius type
Option B:	Constant angle type
Option C:	Variable radius type
Option D:	Variable angle type
Q11.	‘Economical height of a dam’ is that height for which
Option A:	Cost per unit storage is minimum
Option B:	Benefit cost ratio is maximum
Option C:	Net benefits are maximum
Option D:	
Q12.	What is the recommended formula for top width of a very low earthen dam?
Option A:	H + 3
Option B:	0.2H + 3
Option C:	0.2 H
Option D:	H + 5
Q13.	Calculate the top width (A) of the earth dam of height 50 m (H>30).
Option A:	5.0 m
Option B:	4.75 m
Option C:	6.13 m

Option D:	3 m
Q14.	Which of the following spillway is an improvement over free overflow spillway?
Option A:	Straight drop spillway
Option B:	Shaft spillway
Option C:	Siphon spillway
Option D:	Overflow spillway
Q15.	What is the satisfactory radius for the reverse bottom curve which is provided at the downstream end of the spillway?
Option A:	One-fourth of the spillway height
Option B:	Equal to the spillway height
Option C:	Half the value of the spillway height
Option D:	One third of the value of the spillway height
Q16.	Which of the following dam is also known as the Amberson dam?
Option A:	Multiple arch buttress dam
Option B:	Mushroom head buttress dam
Option C:	Massive head buttress dam
Option D:	Free deck buttress dam
Q17.	The spillway gate which when lowered cannot be seen from a distance is of the type _____
Option A:	Sliding gate
Option B:	Roller gate
Option C:	Tainter gate
Option D:	USBR drum gate
Q18.	Which dam is a better choice when the raw materials are not available and have to be transported from far off distances?
Option A:	Rock filled dam
Option B:	Earthen dam
Option C:	Concrete gravity dam
Option D:	Hollow concrete dam
Q19.	In CD works a Super passage is the reverse of _____
Option A:	Syphon
Option B:	Aqueduct
Option C:	inlets and outlets
Option D:	syphon Aqueduct
Q20.	Leakage through the transverse joints in gravity dam is prevented by
Option A:	Shear keys
Option B:	Key ways
Option C:	Water stops
Option D:	Valves

Q21.	Which fall is adopted for smaller discharges and larger drops.
Option A:	Ogee fall
Option B:	Sarda fall
Option C:	Glacis fall
Option D:	Well-type fall
Q22.	Which one of the following gate is not suitable for curved crests?
Option A:	Flush boards
Option B:	Tainter gates
Option C:	Drum gates
Option D:	Vertical lift gates
Q23.	A cross drainage work is called siphon when it carries the canal water
Option A:	Below the drainage under pressure
Option B:	Below the drainage at atmospheric pressure
Option C:	Above the drainage at atmospheric pressure
Option D:	Constant pressure
Q24.	The axis of a gravity dam is the _____
Option A:	line of the crown of the dam on the downstream side
Option B:	line of the crown of the dam on the upstream side
Option C:	centre-line of the top width of the dam
Option D:	line joining mid-points of the base
Q25.	In Lane's weighted creep theory, he suggested a weightage factor _____
Option A:	1/3 for horizontal creep and 1.0 for vertical creep
Option B:	1/3 for vertical creep and 1.0 for horizontal creep
Option C:	2/3 for horizontal creep and 1/3 for horizontal creep
Option D:	2/3 for vertical creep and 1/3 for horizontal creep

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	C
Q2.	B
Q3.	B
Q4	C
Q5	C
Q6	A
Q7	B
Q8.	A
Q9.	D
Q10.	B
Q11.	A
Q12.	B
Q13.	C
Q14.	D
Q15.	A
Q16.	D

Q17.	D
Q18.	D
Q19.	B
Q20.	C
Q21.	D
Q22.	A
Q23.	A
Q24.	B
Q25.	A