Question	Answer1	Answer2	Answer3	Answer4	Correct Answer	Marks
Which of the following statement about flat slab is incorrect?	Flat slab minimizes floor-to-floor heights	It increases the shear strength of the slab	It is possible to have a large span	Construction time required is less	Answer3	2
Drops are provided in flat slabs to resist____	Bending Moment	Shear	Deflection	Torsion	Answer2	2
The design live load in direct design method shall____	not exceed three times the design dead load	not exceed two times the design dead load	exceed three times the design dead load	exceed two times the design dead load	Answer1	2
The distance of the critical section for shear from the periphery of the column or drop panel is at a distance _____ (where‘d’ is effectivedepth of flat slab)	d/5	d/3	d/2	d	Answer3	2
Which of the following is correct about direct design method?	End span must be shorter but not greater than interior span	End span must be shorter and greater than interior span	End span must be equal to interior span	None of the above	Answer1	2
Deep beams are designed for _____	Shear force only	Bending moment only	Both shear force and bending moment	Bearing	Answer2	2

Flexural members should be designed as deep beams if the ratio of clear span to the overall depth is _____	Greater than 3	Greater than 4	Less than 3	Less than 4	Answer3	2
As per IS 456-2000, for a simply supported beam, if $1 \leq 2$; then lever arm z is given as__	z = 0.2 (l+2D)	$z = 0.2\ (l + 1.5D)$	$z = 0.2\ (2l + 2D)$	$z = 0.2\ (2l + 1.5D)$	Answer1	2
A continuous beam is deemed to be a deep beam when the ratio of effective span to overall depth (l/D) is less than _____	1.5	2	2.5	3	Answer3	2
The total area of side face reinforcement, in case of deep beam should not be less than	0.1% of web area	0.2% of web area	0.3% of web area	0.4% of web area	Answer2	2
Chimneys are subjected to	Stresses due to self weight	Stresses due to wind moment	Stresses due to temp. variation between inside and outside of chimney	All of the above	Answer4	2
Which of the following statement about brick chimneys is incorrect?	Brick chimneys are suitable for short as well as long heights	Brick chimneys require heavy foundation	Brick chimneys frequently cracks and becomes unstable	They become bulky with increase in height	Answer1	2
What is the temperature below which concrete chimneys can be used without any fire brick lining?	350^{o}C	400^{o}C	450^{o}C	500^{o}C	Answer2	2

Why the vertical steel is provided in concrete chimneys?	To resist horizontal shear	To resist vertical shear	To resist bending moment due to wind	None of the above	Answer3	2
What is the use of horizontal steel i.e. hoop steel in chimneys?	To resist horizontal shear	To resist vertical shear	To resist bending moment due to wind	None of the above	Answer1	2
Counter fort retaining wall provided when	height of the cantilever retaining wall is more than about 7m	height of the cantilever retaining wall is more than about 7.5m	height of the cantilever retaining wall is more than about 8m	none of these	Answer1	2
The main function of retaining walls is	stabilize hillsides	Control erosion	to reduce the grades of roads	all are correct	Answer1	2
Semi gravity retaining wall classified into	Flexible retaining walls	Cantilever retaining wall	B and C both	All are correct	Answer4	2
Gravity type retaining wall type is suitable for retaining backfill upto	3-5 m	5-8 m	4 - 7 m	Any height	Answer3	2
Which one used as deep groundwater barriers through and under dams?	Retaining wall	Diaphragm wall	Sheet pile wall	All are correct	Answer2	2

If the area of steel is 1078 mm^2 and assumed dia. bar is 16mm the calculated spacing is	186 mm	196 mm	1860 mm	1960 mm	Answer1	2
Vertical steel is provided in the wall to avoid_____	Bending	Shear	Hoop	Torsion	Answer1	2
Circumferential steel is provided in wall to avoid _____force	Bending	Shear	Hoop	Torsion	Answer3	2
As per the IS provision minimum thickness of wall is _____	200mm	150 mm	300mm	250mm	Answer2	2
Coefficient of direct tension is 0.174 and height of wall is H = 4.5 m then max. Shear tensile force is _____	401 KN	4010 KN	501 kn	None of above	Answer1	2
Yield line are _____ lines so that they may act as plastic hinges	Parallel	Parabolic	Straight	None of the above	Answer3	2
If an edge is fixed or continuous, a yield line may form along the_____	Span	Support	Edges	Mid span	Answer2	2

Analysis of slab by using yield line _____ method is used	Virtual Work Method	Is Code Method	Moment Distribution Method	Matrix Method	Answer1	2
For hexagonal simply supported slab Mu = 24.264 KNm then load carrying capacity is _____when L=3.5 m	15.845 KN/m^2	15.884KN/m^2	15.584 KN/m^2	15.485 KN/m^2	Answer1	2
Radius of circular slab r = 3.5m, w_u=12 KN/m^2 with all edges simply supported then moment carried by slab is_____	23.50 KNm	24.50 KNm	25.50 KNm	26.50 KNm	Answer2	2