

Name:	 UPES UNIVERSITY WITH A PURPOSE
Enrolment No:	

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES
End Semester Examination, July 2020

Course: Safety in Construction
Program: M Tech- HSE/ HSE spl with DM
Course Code: HSFS 7010
Instructions: Attempt All Questions

Semester: II
Time 03 hrs.
Max. Marks: 100

TF	Beneficiary means a building worker registered under section 12.	TRUE	Correct	FALSE	Incorrect				
M C	BOCW, deemed to have come into force on the 1st day of -----, 1996	December	Incorrect	August	Incorrect	May	Incorrect	March	Correct
M C	Advisory committees are listed in the section-----	1	Incorrect	2	Incorrect	3	Correct	None	Incorrect
M C	Registration of building workers as beneficiaries are listed in the section (BOCW)-----.	3	Incorrect	5	Incorrect	8	Incorrect	12	Correct
M C	Fixation of normal working hours are explained under the BOCW Chapter-- ----	I	Incorrect	II	Incorrect	VI	Correct	XiX	Incorrect
M C	Creches are to be provided at work site when number of female workers increased by -----	50	Correct	75	Incorrect	100	Incorrect	None	Incorrect
M C	Appointment of safety officers are given under the section -----	28	Incorrect	38	Correct	40 B	Incorrect	209	Incorrect
M C	Under which section of BOCW, powers are given to make rules on Safety-----	38	Incorrect	40	Correct	40B	Incorrect	55	Incorrect

M C	Penalty for contravention of provisions regarding safety measures are listed in BOCW under section-----	38	Incorrect	47	Correct	40B	Incorrect	55	Incorrect
M C	Penalty for contravention of provisions regarding safety measures are listed in BOCW in contravention of provision / rules made under the section-----	38	Incorrect	40	Correct	40B	Incorrect	55	Incorrect
M C	A mechanical device used in building or other construction work for transport of building material, articles, or packages or solid bulk from one point to another point is named as-----	Lifting	Incorrect	Hoisting	Incorrect	Conveyor	Correct	Banksman	Incorrect
M C	Work incidental to or connected with the total or partial dismantling or razing of a building or a structure other than a building and includes the removing or dismantling of machines or other equipment will be in the category of-----	Erection	Incorrect	Dismantling	Incorrect	Demolition	Correct	All	Incorrect
M C	A minimum liquid temperature at which a spark or flame causes an instantaneous flash in the vapour space above the liquid is called as-----	Ignition point	Incorrect	Flash Point	Correct	Burning point	Incorrect	All	Incorrect
TF	High pressure air means the air used to supply power to pneumatic tools and devices.	TRUE	Correct	FALSE	Incorrect				
M C	A ----- means cranes, hoist derrick, winch, gin pole, sheer legs, jack, pulley block or other	Lifting Appliances	Correct	Lifting Tools	Incorrect	Lifting Tackles	Incorrect	All	Incorrect

	equipment used for lifting materials, objects etc.								
M C	A structure projecting beyond the façade of a building with the inner end being anchored and includes a cantilever or other support is called as -----	Cantilever support	Incorrect	Outriggers	Correct	Jack support	Incorrect	All	Incorrect
M C	Putlog is related to-----	Excavation	Incorrect	Scaffold	Correct	Crane	Incorrect	None	Incorrect
M C	Assembly of a tie tube and a fittings used for tightening a tube between two opposite surfaces is termed as---	Reveal tie	Correct	Clamps	Incorrect	Banana Clip	Incorrect	All	Incorrect
TF	Scaffold is always a temporary structure.	TRUE	Correct	FALSE	Incorrect				
TF	Shaft have an excavation having a longitudinal axis at an angle always greater than ninety degree from the horizontal	FALSE	Correct	TRUE	Incorrect				
M C	Sole plate is related to -----	Material Handling	Incorrect	Excavation	Incorrect	Work at height	Correct	All	Incorrect
TF	Transom, means a member placed horizontally and used to tie transversely one ledger to another, or one standard to another in an independent tie scaffold.	TRUE	Correct	FALSE	Incorrect				
TF	Tunnel and Underground always express the same meaning.	FALSE	Correct	TRUE	Incorrect				
M C	A ----- is where building workers are required to be present or to go for work and which are under the control of any employer	Workplace	Correct	Rest Rooms	Incorrect	Shelters	Incorrect	All	Incorrect

TF	It is not the duty of every employee to comply with the requirements of such of these rules as are related to the performance of or the refraining from an act by him and to co-operate in carrying out these rules.	FALSE	Correct	TRUE	Incorrect				
M C	Permissible level of construction machinery noise level is limited to ---- -- dB.	65	Incorrect	70	Incorrect	80	Incorrect	90	Correct
M C	Accessive noise guidelines are given under the schedule----	II	Incorrect	III	Incorrect	VI	Incorrect	VI	Correct
M C	Emergency action plan needs to be available if numbers of workers are more than ----- at construction site.	200	Incorrect	300	Incorrect	250	Incorrect	500	Correct
M C	Every establishment employing --- ---- or more building workers shall prepare a written statement of policy in respect of safety and health of building workers and submit the same for the approval of the Director Genera	50	Correct	100	Incorrect	250	Incorrect	500	Incorrect
M C	An adolescent female may lift the weight upto --- kgs.	20 kgs	Correct	25 Kgs	Incorrect	30 Kgs	Incorrect	None	Incorrect
M C	We must ensure that, petrol or liquefied petroleum gas or any other flammable substances are not used, stored inside the tunnel except with the prior approval of the project engineer under rule --- -----	67	Incorrect	80	Incorrect	120	Correct	210	Incorrect
TF	An audible fire alarm is not mandatory to provide warn the	FALSE	Correct	TRUE	Incorrect				

	building workers whenever a fire breaks out on an excavation or tunnelling work.								
TF	Tight steel curtain are provided in an area liable to flooding at tunneling work.	TRUE	Correct	FALSE	Incorrect				
TF	First-aid room is not mandatory to be provided at a construction site.	FALSE	Correct	TRUE	Incorrect				
M C	Man-lock is related to ----	Work at Height	Incorrect	Confined space	Correct	Open excavation	Incorrect	All	Incorrect
M C	Material- lock is related to----	Excavation Work	Incorrect	Work at Height	Incorrect	Underground work	Correct	All	Incorrect
TF	The man-lock at tunnelling work is not used for any purpose other than compression or decompression of building workers.	TRUE	Correct	FALSE	Incorrect				
M C	Where more than ----- building workers are employed in a compressed air working environment exceeding one bar at tunnelling work, one medical lock is provided .	50	Incorrect	100	Correct	150	Incorrect	250	Incorrect
M C	Crawling boards are to be provided for the ----- activities.	Excavation Work	Incorrect	Steep Roof	Correct	Material handling	Incorrect	All	Incorrect
M C	Maximum distance between two rungs are-----mm	200	Incorrect	250 mm	Incorrect	300	Correct	400	Incorrect
M C	Height of Hand rails varies between -- -----mm to -----mm.	600, 1000	Incorrect	900, 1120	Correct	900, 1500	Incorrect	800, 1500	Incorrect
M C	PTW remains in ----- colors.	1	Incorrect	2	Incorrect	3	Correct	4	Incorrect
M C	Excavated materials are to be kept away from the edge of excavation minimum of ----- mtr	0.5	Incorrect	0.6	Correct	0.9	Incorrect	1	Incorrect

M C	Catch platform is at least ----mm. wide and is inclined so that the position of outer edge of such platform is ----- mm. higher than the inner edge.	2000, 1500	Correct	1000, 1500	Incorrect	800, 1200	Incorrect	None	Incorrect
TF	Formwork and false work are so designed, constructed and maintained that such formwork and false work support the load that may be imposed on them.	TRUE	Correct	FALSE	Incorrect				
M C	Trenching hazards includes -----	Mean of access	Incorrect	Soil collapse	Incorrect	Weather condition	Incorrect	All	Correct
TF	Soft barrication is to be provided adjacent to the an open excavation in preventing fall of man and material or equipment.	FALSE	Correct	TRUE	Incorrect				
TF	Hard barrication is to be provided around the open and deep excavation in preventing accidents.	TRUE	Correct	FALSE	Incorrect				
TF	Pre-employment medical check ups to be done only with the senior management employee of an organization.	FALSE	Correct	TRUE	Incorrect				
M C	Soil collapse may happens due to-----	Hydration of soil	Incorrect	flooding into the dig	Incorrect	Inadequate earth protection	Incorrect	All	Correct
M C	Failure in providing mean of access in open and deep excavation is due to--- --	Workers unawareness	Incorrect	Safety Personnel leniency	Incorrect	In-charge of location leniency	Correct	Design issues	Incorrect
M C	A machine has fell into the open and deep excavation due to-----	Operator mistakes	Incorrect	Due to lack of hard barrication	Incorrect	Due to lack of supervision	Incorrect	All	Correct
M C	PTW is to be given for -----	Material Handling	Incorrect	Sewer cleaning	Correct	Open excavationn upto 800 mm deep	Incorrect	All	Incorrect

TF	Trenching and excavation are same in nature.	FALSE	Correct	TRUE	Incorrect				
TF	Do you like to cordon off the areas where heavy machinery are working round the clock.	TRUE	Correct	FALSE	Incorrect				
M C	A structure able to withstand a cave-in and protect employees is called -----	Barricade	Incorrect	Slopes	Incorrect	Benching	Incorrect	Shield	Correct
M C	A structure that supports the sides of an excavation and protects against cave-ins called-----	Shoring	Correct	Slopes	Incorrect	Benching	Incorrect	Shield	Incorrect
M C	A narrow excavation, when depth is greater than the width, but not wider than 15 feet called-----.	Excavation	Incorrect	Trench	Correct	Shaft	Incorrect	All	Incorrect
M C	A written authorization and monitoring system to carry out a Hazardous work safely under controlled conditions in an area having potential of incidents called as-----	SOP	Incorrect	PTW	Correct	LOTO	Incorrect	All	Incorrect
M C	Type ----- soil must have an unconfined compressive strength of at least 1.5 tons per square foot.	A	Correct	B	Incorrect	C	Incorrect	Rock	Incorrect
M C	Slopes of excavation maintained to 1/ (3/4) will be categorized under ----	A	Correct	B	Incorrect	C	Incorrect	None	Incorrect
M C	For type B, slopes are to be maintained is -----	1/ (3/4)	Incorrect	45 Degree	Correct	30 Degree	Incorrect	None	Incorrect
M C	A ----- is a temporary structure designed to keep water and/or soil out of the excavation in which a bridge pier or other structure is built	Shield	Incorrect	Shutter	Incorrect	Cofferdam	Correct	Diphram	Incorrect

M C	The term cofferdam is made from the word "coffer" means -----	Layer protection	Incorrect	Cover	Incorrect	Box	Correct	All	Incorrect
M C	Single walled is related to-----	Work at Height	Incorrect	Crane	Incorrect	Cofferdam	Correct	Excavation	Incorrect
M C	Braced cofferdams are used when water level is approximately -----feets.	10 to 15	Incorrect	30 to 35	Correct	40 to 45	Incorrect	None	Incorrect
M C	Earth type cofferdams are recommended when water depth is less than----- mtrs.	3	Correct	10	Incorrect	12	Incorrect	15	Incorrect
M C	The item needed for installation of cofferdams are---	Vibrator	Incorrect	Pile driving hammer	Incorrect	H-Piles	Incorrect	All	Correct
M C	Dock workers act was inacted during -----	1986	Correct	1996	Incorrect	1998	Incorrect	1999	Incorrect
TF	In Dock works, the Chief Inspector shall also exercise the powers of an Inspector.	TRUE	Correct	FALSE	Incorrect				
TF	The Chief Inspector and all Inspectors shall be deemed to be public servants within the meaning of the Indian Penal Code	TRUE	Correct	FALSE	Incorrect				
TF	A dock inspector can issue show-cause notice relating to the safety, health and welfare provisions arising under this Act or the regulations	TRUE	Correct	FALSE	Incorrect				
TF	The Chief Inspector or the Inspector shall disclose the source of any complaint bringing to his notice a defect or breach of any legal provisions and if any visit or inspection is to be made In connection with such a complaint, be shall give no intimation to the employer that the visit is made in	FALSE	Correct	TRUE	Incorrect				

	consequence of receipt of such a complaint								
M C	No workers shall willfully and without reasonable cause do anything likely to endanger himself or others is stated under--	Power of inspector	Incorrect	Obligation of dock workers	Correct	Responsibility of safety officer	Incorrect	None	Incorrect
M C	Providing for the testing, examination, inspection and certification as appropriate of loose gears including chains and ropes and of slings and other lifting devices used in dock work are stated under----	Power of inspector	Incorrect	Obligation of dock workers	Incorrect	Power to make regulations	Correct	All	Incorrect
M C	Fall hazards concerned with -----	Uneven and uncompact ground	Incorrect	Unsafe access to scaffold.	Incorrect	Inadequate footings.	Incorrect	All	Correct
M C	Rope crab is a part of -----	Scaffold	Incorrect	Ladder	Incorrect	Safety harness	Correct	None	Incorrect
M C	Travel restraint system is related to---	Fall arrest system	Correct	Working platform	Incorrect	Scaffold	Incorrect	All	Incorrect
M C	Anchorage system can be maintained of safety factor-----	1	Incorrect	2	Correct	3	Incorrect	4	Incorrect
TF	A fall arrest system include a lanyard equipped with a shock absorber unless the shock absorber could cause a falling worker to hit the ground or an object or a level below the work	TRUE	Correct	FALSE	Incorrect				
M C	Vertical, Horizontal and Retractable are the types of -----	Fall arrest system	Incorrect	Safety Harness	Incorrect	Life Line	Correct	None	Correct

TF	Vertical life line can be used by more than one person at a time.	FALSE	Correct	TRUE	Incorrect				
TF	A vertical lifeline must have a positive stop to prevent the rope grab from running off the end of the lifeline	TRUE	Correct	FALSE	Incorrect				
TF	Scaffold can be called as staggig ?	TRUE	Correct	FALSE	Incorrect				
TF	More than half of scaffold accidents in construction areas are due to falls.	TRUE	Correct	FALSE	Incorrect				
TF	Scaffolds in excess of 9 metres (30 feet) should have built-in stairs with rest platforms.	TRUE	Correct	FALSE	Incorrect				
M C	Height to width ration of castor type scaffold should be -----	1 to 3	Incorrect	3 to 1	Correct	1 to 4	Incorrect	4 to 1	Incorrect
TF	3-to-1 height-to-width ratio and is impractical for heights greater than 7.5 metres (25 feet) for firm wagon type.	TRUE	Correct	FALSE	Incorrect				
TF	Don't Use a stand-off vertical ladder with a cage if the scaffold is above 3 metres (10 feet).	FALSE	Correct	TRUE	Incorrect				
M C	A ----- should consist of a top rail about 1 metre (40 inches) above the platform.	Guardrails	Correct	Mid Rails	Incorrect	Tower	Incorrect	All	Incorrect
M C	Toe-board should be at least 89 mm (3 1/2") high at the platform level if made from -----.	Wood	Correct	Steel	Incorrect	Pipes	Incorrect	None	Incorrect
TF	Frame scaffolds over 15 metres (50 feet) in height, and tube-and-clamp and systems scaffolds over 10 metres (33 feet), must be designed by a professional engineer.	TRUE	Correct	FALSE	Incorrect				

M C	During erection and dismantling of scaffold, which is/ are correct-----	Do not use blocking or packing such as bricks, short pieces of lumber, or other scrap materials either under scaffold feet or under mudsills	Incorrect	Mud and soft soil should be replaced with compacted gravel or crushed stone	Incorrect	support scaffolds, backfilled soils must be well compacted and levelled	Incorrect	All	Correct
M C	Scaffold material should be inspected before use for-----	delamination in laminated veneer lumber planks	Incorrect	compatibility of components	Incorrect	damage to structural components	Incorrect	All	Correct
M C	Before erecting a scaffold, check the location for-----	ground conditions	Incorrect	overhead wires	Incorrect	variation in surface elevation	Incorrect	All	Correct
M C	A ----- comprises the system of ropes, cables and chains, which support a sailing ship or sail boat's masts	Hoisting	Incorrect	Rigging	Correct	Crane	Incorrect	All	Incorrect

M C	A ----- are fixed to the ground in the construction period. For the fixing arrangement, strong concrete base is created and anchored the crane by using large bolts	Loofing crane	Incorrect	Wheel Mounted crane	Incorrect	Tower Crane	Correct	All	Incorrect
M C	A ---- cranes are having flanged wheels at its bottom which can be moved in rail track only.	Rail road	Correct	All terrain	Incorrect	Harbor crane	Incorrect	Crawler Crane	Incorrect
M C	Minimum clearance distannce from 750- 1000 KW is ---- feet.	25	Incorrect	30	Incorrect	35	Correct	50	Incorrect
TF	Whenever cranes must repeatedly travel beneath power lines a route is plainly marked and "rider poles" are erected on each side of the crossing approach to ensure that the crane structure is lowered to a safe height	TRUE	Correct	FALSE	Incorrect				