



BRAINWARE UNIVERSITY

Term End Examination 2021 - 22

Programme – Diploma in Civil Engineering

Course Name – Advanced Construction Techniques and Equipment

Course Code - DCE604 A

(Semester VI)

Time allotted : 1 Hrs.15 Min.

Full Marks : 60

[The figure in the margin indicates full marks.]

Group-A

(Multiple Choice Type Question)

1 x 60=60

Choose the correct alternative from the following :

- (1) The cement concrete, from which entrained air and excess water are removed after placing it

| | |
|-------------------------|---------------------|
| a) Vacuum concrete | b) LWC |
| c) Prestressed concrete | d) Sawdust concrete |
- (2) Aerated Concrete is _____

| | |
|----------------------|-----------------|
| a) Very heavy weight | b) Heavy weight |
| c) Medium weight | d) Light weight |
- (3) Density of no fines concrete with light weight aggregate vary from _____ kg/m³.

| | |
|--------------|---------|
| a) 1600-1900 | b) <300 |
| c) >2500 | d) >300 |
- (4) lightweight concrete can be used in

| | |
|---------------------------------------------------|---------------------------|
| a) air-conditioned buildings | b) non-load bearing walls |
| c) providing a reduced thickness of the structure | d) all of the above |
- (5) concreting in hot weather will result in

| | |
|-----------------------|-----------------------|
| a) increased strength | b) increased cracking |
| c) retard setting | d) unevenness |
- (6) shotcrete is used in the application of

| | |
|---------------------------------|----------------------|
| a) soil stabilization | b) waterproofing |
| c) stabilization of rock slopes | d) none of the above |
- (7) ready mixed concrete (RMC) is (i) specified in terms of performance parameters (ii) produced under factory conditions (iii) produced and supplied by weight the correct answer is

- a) 0.2
c) 0.4
- b) 0.3
d) 0.5
- (21) A window should be located on the _____ side of a room as seen from the point of view of fresh air.
- a) Eastern
c) Western
- b) Northern
d) Southern
- (22) _____ gives excellent exposed concrete surface requiring no further finishing treatment.
- a) Timber
c) Steel
- b) Teak wood
d) Fibre glass
- (23) The _____ formwork should be neither too dry nor too wet.
- a) Fibre glass
c) Timber
- b) Steel
d) Metal
- (24) The _____ formwork can be reused several time as compared to ordinary Timber formwork.
- a) Sunmica
c) Fibre ply
- b) Cardboard
d) Plywood
- (25) In case of formwork for the floor, the _____ supports should be firmly supported at the bottom.
- a) Horizontal
c) Inclined
- b) Vertical
d) Slanting
- (26) The formwork for _____ consists of sheets, studs, Wales, ties and braces.
- a) Column
c) Walls
- b) Beams
d) Stairs
- (27) Which of the following rules is used in order to select the location of a window?
- a) Height of window = $\frac{1}{8}$ (width of room + breadth of room)
c) Length of window = $\frac{1}{8}$ (width of room + breadth of room)
- b) Breadth of window = $\frac{1}{8}$ (width of room + height of room)
d) Width of window = $\frac{1}{8}$ (height of room + breadth of room)
- (28) _____ is the vertical outer member of the shutter.
- a) Style
c) Lock rail
- b) Top rail
d) Bottom rail
- (29) _____ is the top horizontal member of a shutter.
- a) Head
c) Style
- b) Top rail
d) Sill
- (30) The cement concrete in which high compressive stress are artificially induced before its actual use, is called
- a) Plain cement concrete
c) Lime concrete
- b) Prestressed cement concrete
d) Prestressed cement concrete
- (31) Workability of concrete for a given water content is good if the aggregates are
- a) Rounded aggregate
c) Angular aggregate
- b) Irregular aggregate
d) Flaky aggregate
- (32) The mixer, which produces a steady stream of concrete as long as it is in operation, is known as

than the other?

- a) Flying shore
 - b) Pile Underpinning
 - c) Pit Underpinning
 - d) Raking shore
- (45) Which of the following is a mixture of cement, sand, pebbles or crushed rock and water, which, when placed in the skeleton of forms and are allowed to cure, becomes hard like a stone?
- a) Cement mortar
 - b) Cement grouting
 - c) Cement concrete
 - d) Cement slurry
- (46) Which of the following is a non combustible building material with low coefficient of expansion?
- a) Glass
 - b) Asbestos cement
 - c) Brick
 - d) Sandstone
- (47) The temporary framework is known as _____ and it is useful in construction demolition, maintenance or repair works.
- a) Underpinning
 - b) Shoring
 - c) Scaffolding
 - d) Grouting
- (48) _____ is the most common type of scaffolding and is widely used in the construction of brickwork.
- a) Suspended scaffolding
 - b) Single scaffolding
 - c) Trestle scaffolding
 - d) Steel scaffolding
- (49) In _____ type of scaffolding, the working platform is supported on movable contrivances such as Ladders, tripods, etc., mounted on wheels.
- a) Trestle scaffolding
 - b) Cantilever scaffolding
 - c) Mason's scaffolding
 - d) Bricklayers scaffolding
- (50) _____ have been developed for determining the load bearing capacity of piles.
- a) Wave action theory
 - b) Empirical formulas
 - c) Static formulas
 - d) Dynamic formulas
- (51) The _____ equate the soil resistance to the bearing power of the pile.
- a) Dynamic formulas
 - b) Wave action theory
 - c) Static formulas
 - d) Empirical formulas
- (52) Identify the given pile driving formula. $R = (W_1 \times H) / S \times W_1 / (W_1 + W_2)$
- a) Dutch formula
 - b) Eytelwein formula
 - c) Hiley formula
 - d) Engineering News formula
- (53) Who introduced the bar charts?
- a) Williams henry
 - b) Henry Gantt
 - c) Jane Gantt
 - d) Joseph henry
- (54) The full form of PERT is _____
- a) Program Evaluation and Rate Technology
 - b) Program Evaluation and Robot Technique
 - c) Program Evaluation and Robot Technology
 - d) Program Evaluation and Review Technique
- (55) The full form of CPM is _____
- a) Critical Path Method
 - b) Control Path Method
 - c) Critical Plan Management
 - d) Control Path Management
- (56) _____ are used to represent activity in a network diagram.

- a) Circles
- b) Squares
- c) Rectangles
- d) Arrows

(57) The shortest possible time in which an activity can be achieved under ideal circumstances is known as _____

- a) Pessimistic time estimate
- b) Optimistic time estimate
- c) Expected time estimate
- d) The most likely time estimate

(58) According to the time estimates made by the PERT planners, the maximum time that would be needed to complete an activity is called as _____

- a) The most likely time estimate
- b) Optimistic time estimate
- c) Pessimistic time estimate
- d) Expected time estimate

(59) The difference between the maximum time available and the actual time needed to perform an activity is known as _____

- a) Free float
- b) Independent float
- c) Total float
- d) Half float

(60) While fixing rate per unit of an item, the quantity of materials and labour needed for one unit of an item are strictly per _____

- a) Special Data Book
- b) Standard Data Book
- c) Special Data Record
- d) Specific Data Record