

KATHMANDU UNIVERSITY
End Semester Examination [C]
June, 2018

Marks Scored:

Level : B. E

Year : IV

Course : CIEG 403

Semester : I

Exam Roll No. :

Time: 30 mins.

F. M. : 10

Registration No.:

Date

JUN 19 2018

SECTION "A"

[20 Q. × 0.5 = 10 marks]

1. If project is crashed
 - a) cost of a project decreases.
 - b) cost of the project increase
 - c) cost remains unchanged.
 - d) cost of the project decreases.
2. Resource leveling is done to adjust
 - a) peak demand and idle periods of resources
 - b) resources in critical path only
 - c) Project's indirect cost
 - d) the time required for completion.
3. The organization with unlimited liability is
 - a) Dept. Undertakings
 - b) Sole proprietorship
 - c) Company
 - d) Public enterprises
4. Main contractor hires subcontractor to construct only a certain item of works. The cost of subcontractor is
 - a) an over head cost of project
 - b) a direct cost of project
 - c) an Indirect cost of project
 - d) a mark up price
5. Organization that is flexible, with short chain of command, where manager enjoys independence and authority is the characteristics of
 - a) Matrix organization
 - b) Project organization
 - c) Company
 - d) Functional organization
6. Specification that is published by Government or Departments that serves as guidelines and is not a part of agreement is called
 - a) Particular specification
 - b) Product specification
 - c) General specification
 - d) design specification
7. The contract in which Contractor is appointed by the owner for planning, managing, and coordination of the project is called
 - a) Turnkey project
 - b) Management contract
 - c) BOT contract
 - d) Lump-sum contract
8. Prevention of quality problems through planned and systematic activities, including documentation is known as
 - a) Quality Control
 - b) Quality Assurance
 - c) Total Quality Management
 - d) ISO
9. In quality cost curve, as quality of a product increases the failure cost
 - a) decreases
 - b) increases
 - c) remain constant
 - d) decreases/ increases proportionately

10. Following is not the responsibility of owner
a) Manage all resources
b) Enforcing the contract
c) Making timely payment to contractor
d) Controlling time, cost and quality
11. The main responsibility of a project engineer during construction is to
a) make timely payment to contractor
b) help contractor in construction
c) avoid conflict
d) enforce contract document
12. While opening the bids, it was found that a bid document is not accompanied by bid-bond. Later you as a member of bid evaluation committee, will:
a) not evaluate the bid
b) accept the bid
c) reconsider the bidder
d) ask bidder to submit bid-bond
13. Bid security is forfeited if a bidder
a) withdraws the bid after submission
b) modifies the bid after submission
c) does not turn up in bid opening
d) does not turn up in pre-bid meeting
14. If you have to remove debris of old dismantled building in city area including excavating shallow foundation, you will hire following most suitable equipment:
a) Grader
b) Excavator
c) Loader with backhoe
d) Bulldozer
15. You need to compact soil that is cohesive /clayey in nature in highway construction, you should choose following equipment
a) Steel drum roller
b) Pneumatic tyred roller
c) Hand compactor
d) sheep foot roller
16. As per the Henrich's study, maximum numbers of accidents occurred due to the
a) Human factor
b) Natural calamities
c) mechanical and physical conditions
d) other factors
17. Following issue may also lead to the claim and dispute in construction:
a) Construction defect rectification by contractor
b) Quality beyond specification
c) Quality tests expense as per QAP
d) Ambiguity and loophole in contract
18. The final settlement of dispute if not settled earlier in construction finally ends at
a) Amicable settlement
b) Litigation
c) DRC
d) Arbitration
19. Generally dispute Resolution Committee consists of
a) 7 members
b) 5 members
c) 3 members
d) 2 members
20. Process of completing the project and documenting all the construction tasks in a report required to complete the project is called
a) Start-up
b) Commissioning
c) Testing
d) Project closure

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F.M. : 40

Level : B. E.
Year : IV
Time : 2 hrs.30 mins.

SECTION "B"

Attempt **ALL** questions:

1. What do you understand by project? Mention its characteristics. [5]
2. What do you understand by Planning? Draw a CPM network from the activities in the following table. Also find Critical Path, Total floats, Free floats and Independent floats. [2+5]

Activity	Duration	Precedent Activity	Successive activity
A	8	-	D, E
B	11	-	F
C	10	-	G
D	7	A	F
E	12	A	-
F	9	B, D	-
G	9	C	-

3. Define the term 'contract' and mention its ingredients? Explain briefly about 'Turnkey Contract' in construction. [5]
 4. A project is scheduled for six months whose scheduled budget, budgeted cost of work performed and actual cost of work performed are found as follows during 4 months. Find out the schedule variance, cost variance indices (SPI & CPI) and estimated budget at completion and interpret the results and comment on the performance of the project. [5]
- | | Jan | Feb | March | April | May | June |
|---|-----|-----|-------|-------|-----|------|
| Budgeted cost for work schedule (in thousands). | 200 | 300 | 300 | 300 | 200 | 150 |
| Budgeted cost of work Performed (in thousands). | 180 | 250 | 250 | 250 | - | - |
| Actual cost of work performed (in thousands). | 150 | 200 | 250 | 200 | - | - |
5. What do you mean by procurement? Mention different types/ ways of procurement of works in construction. [5]
 6. What do you mean by risk? How will you evaluate/analyze risks and manage them in construction project? [5]
 7. Write short notes on **ANY FOUR** of the followings. [8]
 - a) Dispute and its resolution in construction.
 - b) Accident and its causes.
 - c) Principles of writing specification.
 - d) Joint Venture in construction.
 - e) Average Annual Construction Turnover (in bid document).

