

Question Bank (I scheme)

Name of Subject: Emerging Trends in Civil Engineering (ETC)

Subject code: 22603

Semester: VI

Unit Test: I

Course: CE6I

Each question carries 1 mark

Unit I (Soft Computing Techniques)

1. GUI means

- a. Golden unit of internal software
- b. Graphical user interface
- c. Graphical user intelligently
- d. Golden user interface

Ans. b. Graphical user interface

2. The process of creating a 3D realistic model of a building is called

- a. Drawing
- b. Drafting
- c. Elevation
- d. Rendering

Ans. d. Rendering

3. For hydraulic and water modeling solutions which software is used

- a. STRAP
- b. Autocad
- c. Water Gems
- d. ETab

Ans. c. Water Gems

4. REVIT software is developed by:

- a. AutoCAD
- b. AutoDesk
- c. Bentley
- d. Tekla

Ans. b. AutoDesk

5. Which of these is not a structural analysis and design software?

- a. STAADPro
- b. ETABS
- c. SAP 2000
- d. HEC-RAS

Ans. d. HEC-RAS

6. Build Master is used for

- a. RCC design
- b. Steel structure design
- c. Estimating
- d. None of the above

Ans. c. Estimating

7. A cloud base mapping, analysis and data storage system hosted by Esri is

- a. Tekla
- b. ArcGis
- c. Arch.Desktop
- d. Water Gems

Ans. b. ArcGis

8. Quik Grid software can be used to:

- a. Create 3D renders of buildings
- b. Design water supply systems
- c. Create contour maps
- d. Analyse framed structures

Ans. c. Create contour maps

9. Which software can be used for designing connections in steel structures?

- a. RISA Connection
- b. WaterGEMS
- c. HEC RAS
- d. Quik Grid

Ans. a. RISA Connection

10. Which software enables construction teams to monitor and manage centralized estimates, takeoffs, reports and contracts?

- a. AutoCAD
- b. ProEst
- c. REVIT
- d. ArcGIS

Ans. b. ProEst

11. Home automation is a part of _____.

- a. Smart Plan 3D
- b. Building Management System (BMS)
- c. Structural Analysis Program (SAP)
- d. Drawing

Ans. Smart Plan 3D

12. Which software can be used to create and manage accurately designed 3D models?

- a. SP3D
- b. STAADPro
- c. Construction Scheduling
- d. BMS

Ans. SP3D

Unit II (Recent Construction Materials)

13. PCE is a material and known as

- a. Poly carbon ethylene
- b. Poly carboxylic ether
- c. Poly centric ether
- d. Poly concrete ethanol

Ans. b. Poly carboxylic ether

14. _____ sand is the outcome of weathering of rocks.

- a. Natural sand
- b. Artificial sand
- c. Mixed sand
- d. Crushed stone sand

Ans. a. Natural sand

15. Which of these can be used as an alternative for steel reinforcement:

- a. Carbon fibre
- b. Glass fibre
- c. Timber
- d. Plastic

Ans. a. Carbon fibre

16. _Which material used for increasing the load carrying capacity of column compared to unreinforced concrete

- a. Rubber
- b. Bamboo
- c. Plastic
- d. Glass

Ans. b. Bamboo

17. Application of carbon fibre in civil engineering includes:

- a. Reinforced concrete
- b. Reinforced pipes
- c. Offshore environment structures
- d. All of the above

Ans. All of the above

18. Which of the given sentences are true:

- i. Density of bricks made with cigarette butts is lower than that of normal bricks.
- ii. Compressive strength of bricks made of cigarette butts is lesser than that of normal bricks.
- iii. Tensile strength of bricks made of cigarette butts is lesser than that of normal bricks.

- a. i, ii and iii
- b. i and ii only
- c. i and iii only
- d. ii and iii only

Ans. b. i and ii only

19. Which of this software can be used for producing 3D printed bricks?

- a. Grasshopper
- b. Pixelstone
- c. Both 'a' and 'b'
- d. None of the above

Ans. c. Both 'a' and 'b'

20. In wood, about 90% of light is blocked by which constituent:

- a. Chlorophyll
- b. Lignin
- c. Tannin
- d. Keratin

Ans. b. Lignin

21. Piezoelectric crystals are embedded under the _____ layer.

- a. Asphalt layer
- b. Subgrade
- c. Subbase
- d. Plastic

Ans. a. Asphalt layer

22. _____ is the most common litter worldwide.

- a. Cigarette butts
- b. Artificial sand
- c. Sensi-tile
- d. Carbon fibre

Ans. a. Cigarette butts

23. Which of the following polymers can be used for making geo-synthetics?

- a. Polyethylene
- b. Polypropylene
- c. Polyester
- d. All of the above

Ans. d. All of the above

24. Nano-concrete is defined as concrete made with Portland cement particles of size:

- a. More than 200 nano-meters
- b. Less than 200 nano-meters
- c. More than 500 Nano-meters
- d. Less than 500 Nano-meters

Ans. d. Less than 500 Nano-meters

Unit III (Latest Tools and Equipment)

25. Fullform of LiDAR is:

- a. Light detection and removal
- b. Longitudinal direction and ranging
- c. Light detection and ranging
- d. Laser direction and ranging

Ans. c. Light detection and ranging

26. _____ is a surveying method that targets the object of interest with a pulse of light, and measures the time taken for the light to reflect back to the detector.

- a. LiDAR
- b. GPS
- c. Chain surveying
- d. Plane table surveying

Ans. a. LiDAR

27. A system used to detect the position of objects on the earth's surface using satellites that orbit the earth is called:

- a. GPS
- b. GIS
- c. GFS
- d. GBPS

Ans. a. GPS

28. Photogrammetry is the process of:

- a. deriving metric information about an object through measurement made on the photograph of the object.
- b. Processing photos in software
- c. Creating coloured photos from monochromatic ones
- d. None of the above

Ans. a. deriving metric information about an object through measurement made on the photograph of the object.

29. _____ is loader machine with a tracked chassis and a loader that can be used for digging and moving/loading materials

- a. Skid Loader
- b. Crawler Loader
- c. Excavator
- d. All of the above

Ans. b. Crawler Loader

30. Forklift truck is used for:

- a. Lifting and lowering
- b. Vertical Transportation
- c. Both 'a' and 'b'
- d. None of the above

Ans. c. Both 'a' and 'b'

31. The trencher which cuts with a digging chain or belt that is driven around a rounded metal frame or boom is called:

- a. Rockwheel trencher
- b. Chain Trencher
- c. Micro Trencher
- d. Portable trencher

Ans. b. Chain Trencher

32. _____ is used to lift and move materials over short distances.

- a. Cranes
- b. Forklift truck
- c. Belt conveyor
- d. None of the above

Ans. b. Forklift truck

33. The main advantage of mobile concrete mixer is:

- a. Convenient to move from site to site
- b. Convenient to change installation site according to need of construction project
- c. Both 'a' and 'b'
- d. None of the above

Ans. c. Both 'a' and 'b'

34. Cranes are used for:

- a. Lifting and lowering
- b. Vertical transportation
- c. Both 'a' and 'b'
- d. None of the above

Ans. c. Both 'a' and 'b'

35. The following is used to transport materials having flat bottoms.

- a. Belt conveyor
- b. Roller conveyor
- c. Chain conveyor
- d. None of the above

Ans. b. Roller conveyor

36. _____ is a machine used for moving or removing dirt, gravel and any other unnecessary material from the surface.

- a. Scrapper
- b. Shovel
- c. Trencher
- d. Backhoe

Ans. a. Scrapper