

Civil Engineering

(Degree & Diploma)

All Direct Recruitment Exams

Practice
Question's

“ MCQ
Bank ”

Useful For

Jr. Engineer | Civil Engineering Assistant Exams

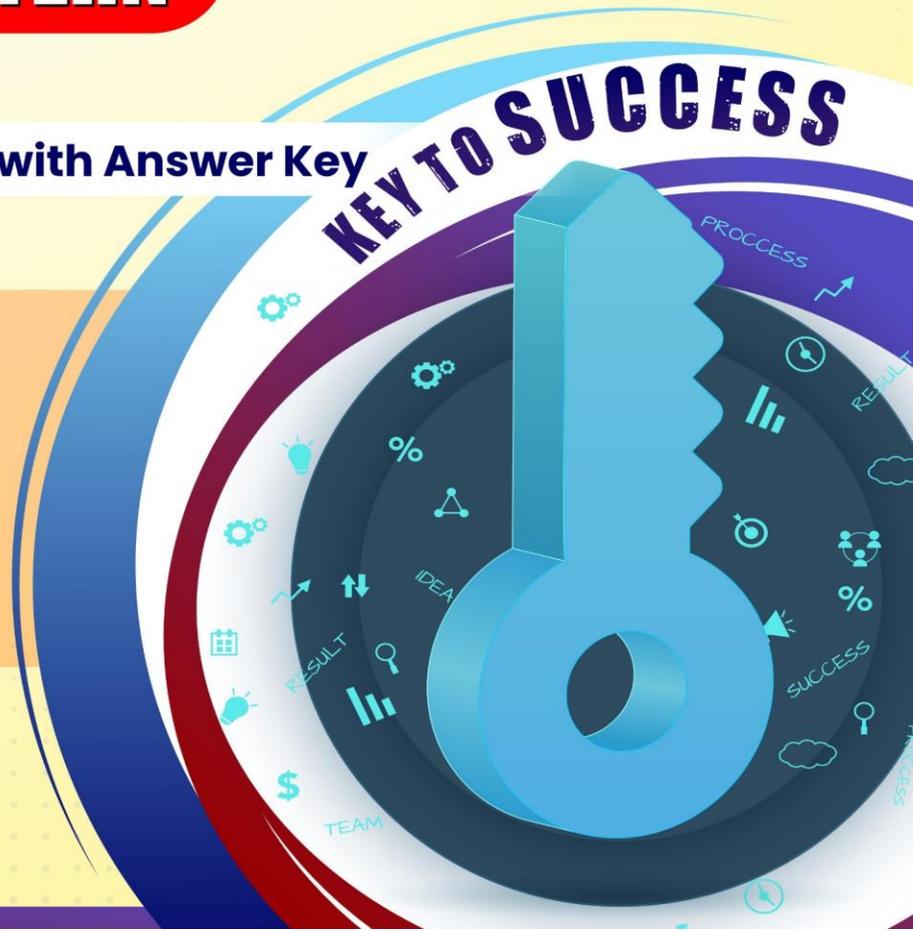
TCS | IBPS PATTERN

3000+ MCQ's with Answer Key

KEY TO SUCCESS

Features

- 21 Technical Subjects
- English Medium Content
- Strictly as per TCS/IBPS Pattern
- Useful for all JE and CEA Posts
- Questions & Answers on same page



PRACTICE Question Bank

ALL DIRECT RECRUITMENT EXAM
JUNIOR ENGINEER | CIVIL ENGINEERING ASSISTANT

3000⁺ MCQ's

FEATURES

3000+ MCQ With Answer key

21 Technical Subject

Strictly As Per TCS/IBPS Level

Useful For JE And CEA Posts

पुस्तक मागणीसाठी संपर्क:

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प्रकाशक

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अक्षरजुळणी, सजावट व मुखपृष्ठ

Team Infinity

We Have made all possible effort to make this book error free however it is request to all students, if you find any error or want to give suggestions that we can incorporate into future editions, feel free Send us email infinityacademyofficial1809@gmail.com

डिसक्लेमर : या पुस्तकाचे संपादन व मुद्रण करताना योग्य ती काळजी व खबरदारी घेतलेली आहे. अनावधानाने राहून गेलेल्या आणि अनावधानाने निर्माण होणाऱ्या चुकीबद्दल आम्ही दिलगिर आहोत . त्यासाठी लेखक, प्रकाशक किंवा मुद्रक यांची कुठलीही जबाबदारी नाही .संकलनातून निर्माण होणाऱ्या व त्याच्याशी संबंधित कुठल्याही प्रकारची देणी, नुकसानभरपाई यातून Infinity Publication मुक्त आहेत. सर्व पुणे न्यायालयाच्या कक्षेत

PREFACE

Dear students,

It is great pleasure to present our most useful book for Civil engineering aspirants those preparing for Civil Engineering TCS| IBPS Pattern All Direct Recruitment examinations including Junior Engineer (JE) and Civil Engineering Assistant (CEA) posts.

Purpose behind this book is to provide a single book to the students those want a MCQ solving practice for technical subjects. This book includes 21 technical subjects which cover all examination subjects' important topics.

Practice questions are provided subject wise so students can understand flow and bifurcate MCQs accordingly. MCQs are given in English medium. This is a perfect Question Bank for All Direct Recruitment Examinations.

In this book answer keys provided on same pages at bottom side in proper way so students can verify the answer without turning the pages. More than 3000 One Liner and other MCQs with answer key are given for practice in this book. Some important key terms and factual data is also given on pages along with MCQs so students can recall the theoretical part from topics.

Motivational Quotes are given in-between to motivate yourself.

We are thankful to infinity Academy and its Publication department for the encouragement and support that they have extended. We are also thankful to director and staff members of infinity academy for their efforts to make this book as good as it is. We have jointly made every possible effort to eliminate all the errors in the book, however if you find any please let us know on WhatsApp number 7057492418 which helps us to improve further.

All The Best !!!!!!!!!!!

Team Infinity

Girish Khedkar

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BUILDING MATERIALS & CONSTRUCTION



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Engineering Academy



BUILDING MATERIALS AND CONSTRUCTION

1. The volume of one bag of cement is
 A. 0.0214 *cu.m* B. 0.0347 *cu.m*
 C. 0.0434 *cu.m* D. 0.0609 *cu.m*

2. The amount of water used in performing setting time test of cement is (assuming p = standard consistency of cement)
 A. 0.60 p B. 0.65 p C. 0.80 p D. 0.85 p

3. The high early strength of rapid hardening cement is due to its
 A. increased content of gypsum
 B. burning at high temperature
 C. increased content of cement
 D. higher content of tricalcium silicate

4. To construct a massive dam the type of cement used is
 A. blast furnace slag cement
 B. low heat cement
 C. rapid hardening cement
 D. ordinary portland cement

5. Flash setting of cement is caused due to
 A. Tri-calcium silicate
 B. Di-calcium silicate
 C. Di-calcium aluminate
 D. Tri-calcium aluminate

6. The presence of following chemical which cause efflorescence in cement is
 A. Alumina B. Calcium Oxide
 C. Silica D. Alkalies

7. What is the cement generally used for road pavements?
 A. Ordinary Portland cement
 B. Rapid hardening cement
 C. Low heat cement
 D. Blast furnace slag cement

8. Which compound of cement is responsible for strength of cement?
 A. Magnesium oxide B. Silica
 C. Alumina D. Calcium Sulphate

9. A quick setting cement has an initial setting time of about:
 A. 5 minutes B. 15 minutes
 C. 40 minutes D. 50 minutes

10. The rate of hydration and hydrolysis of cement depends on its
 A. Soundness B. Fineness
 C. Setting test D. Tensile Strength

11. Which of the following is a sedimentary rock?
 A. Limestone B. Gnesis
 C. Granite D. Dolerite

12. Bauxite is
 A. Hydrated aluminium oxide having dull luster
 B. Hydrated aluminium oxide having shining luster
 C. Hydrated aluminium oxide having vitreous luster
 D. Barium sulphate having vitreous luster

13. Syenite is
 A. Plutonic rock
 B. Hypabyssal rock
 C. Volcanic igneous rock
 D. None of these

14. Which one of the following is an example for igneous rocks?
 A. Conglomerate B. Arkoses
 C. Syenite D. Schist

SOME FACTS:

The heat of hydration for OPC at 7 days <math><65\text{cal/gm}</math> and at 28 days <math><75\text{cal/gm}</math>

QUE	1	2	3	4	5	6	7	8	9	10	11	12	13	14
ANS	B	D	D	B	D	D	B	B	A	B	A	A	A	C





15. Which one is metamorphic rock?
 A. Schist B. Limestone
 C. Sandstone D. Granite
-
16. The solidification of molten magma within the
 A. Sedimentary rocks
 B. Metamorphic rocks
 C. Basalt and traps
 D. Granite
-
17. Which of the following is the predominant constituent of calcareous rocks?
 A. Clay C. Sand
 B. Magma D. Lime
-
18. A size of the test specimen used in the crushing test to determine a compressive strength of stones is
 A. 50 x 50 x 50 C. 75 x 75 x 75
 B. 100 100 100 D. 40 x 40 x 40
-
19. The preparation of surface of stone to obtain plain edges or to obtain stones of required size and shape is known as:
 A. Dressing of stones
 B. Quarrying of stones
 C. Blasting of stones
 D. Seasoning of stones
-
20. The porosity of a good building stone should not be greater than
 A. 4% B. 5% C. 10% D. 20%
-
21. The setting of Portland cement may be defined as
 A. Setting of heat of hydration in cement paste
 B. Change of cement paste from fluid to hardened state
 C. Gain of strength of cement paste
 D. None of the above

22. After storage, the strength of cement
 A. Decreases
 B. Increases
 C. Remains same
 D. May increases or decreases
-
23. The gypsum is added to the cement for
 A. Providing high strength to the cement
 B. Controlling the initial setting time of cement
 C. Lowering the clinkering temperature of cement
 D. All of the above
-
24. The high strength of rapid hardening cement at early stage, is due to its
 A. Finer grinding
 B. Burning at high temperature
 C. Increased lime content
 D. Excess water content
-
25. Le-chatelier's method can be used to determine
 A. Fineness of cement
 B. Fineness of aggregate
 C. Soundness of cement
 D. Compressive strength of cement
-
26. For Portland cement of 43 grade, 28 day mean compressive strength should be
 A. 43 MPa B. 43.5 MPa
 C. 33 MPa D. 38.5 MPa
-
27. The compound first to settle in cement is
 A. Tricalcium silicate
 B. Tetra calcium aluminoferrite
 C. Tricalcium aluminate
 D. Dicalcium silicate

Flow Test

Gives an indication of the consistency of concrete, proneness of concrete to segregation, and cohesiveness of the concrete.

The values could range from 0 to 150%.

QUE	15	16	17	18	19	20	21	22	23	24	25	26	27
ANS	A	D	D	D	A	B	B	A	A	A	C	A	C





28. Gypsum used in cement manufacturing acts as

- A. Accelerator
- B. Air entraining agent
- C. Plasticizer
- D. Retarder

29. The fineness of cement can be found out by sieve analysis using IS sieve number

- A. 20
- B. 10
- C. 9
- D. 6

30. Weight of one bag of cement is:

- A. 70 kg
- B. 50 kg
- C. 60 kg
- D. 65 kg

31. Iron slag is used for manufacturing of

- A. Imperical stone
- B. Bituminous stone
- C. Artificial marble
- D. Garlic stone

32. The standard brick weight should range from

- A. 2000 to 3000 kg/m³
- B. 1600 to 1920 kg/m³
- C. 1350 to 1480 kg/m³
- D. 1120 to 1300 kg/m³

33. Bull's trench kiln is used in the manufacturing of

- A. Cement
- B. Lime
- C. Bricks
- D. M-sand

34. Which class of bricks are used for centering of RCC structures?

- A. IV class
- B. II class
- C. I class
- D. III class

35. According to IS: 2180 1988, what is the minimum bulk density of heavy duty burnt clay brick?

- A. 4.5 g/ cm³
- B. 2.5 g/ cm³
- C. 7.5 g/ cm³
- D. 8.5 g/cm³

Laitance:

Due to over vibration coarse particles settle & rises to the top. The formation of scum is called laitance.

36. Calculate the number of bricks in 20 cubic metres brick works.

- A. 500
- B. 1000
- C. 10000
- D. 100000

37. Mangalore Tiles belong to the category of

- A. Concrete tiles
- B. Slate tiles
- C. Burnt clay tiles
- D. Mosaic tiles

38. Special types of glazed tiles or bricks are used as facing material for the rubble or concrete or brick backing in

- A. Stone facing with Brick, Rubble or Concrete backing masonry
- B. Random Rubble masonry
- C. Brick facing with Rubble or Concrete backing masonry
- D. Brick backed Ashlar masonry

39. The maximum percentage of silt content in soil for making good tiles is about

- A. 10
- B. 20
- C. 30
- D. 40

40. Fine earthenware which is white, thin and semi-transparent called:

- A. Porcelain
- B. Terra-cotta
- C. Plaster of Paris
- D. Pebble dash

41. The standard consistency test is done in a

- A. Blaine's apparatus
- B. Le - Chatelier's apparatus
- C. Vane apparatus
- D. Vicat's apparatus

42. Which of the following Bogue's compounds of cement liberates maximum heat of hydration?

- A. C₃S
- B. C₄AF
- C. C₃A
- D. C₂S

QUE	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
ANS	D	C	B	D	B	C	B	B	C	C	C	C	A	D	C



SURVEYING



SURVEYING

1 The representative fraction 1/2500 means that the scale 1 cm is equal to

- A. 0.25 m B. 2.5 m
C. 25 m D. 2.5 km

2. Surveying related to plotting of details such as boundaries of fields, property line etc. is called

- A. Topographic surveying
B. Traverse surveying
C. Engineering surveying
D. Cadastral surveying

3 The main principle of surveying is to work

- A. From part to the whole
B. From whole to the part
C. From higher level to the lower level
D. From lower level to higher level

4. Which of the following scales is the largest one?

- A. 1 cm = 50 m
B. 1 : 42000
C. $RF = \frac{1}{300000}$
D. 1 cm = 50 km

5. The area of a plot to be surveyed is about **1200.0 km²**, the most suitable method is

- A. Compass B. Tacheometric
C. Geodetic D. Plane table

6. The curvature of the earth's surface, is taken into account only if the extent of survey is more than

- A. 100 sq km B. 160 sq km
C. 200 sq km D. 260 sq km

7. A rapid but through examination of an area of territory between the terminal of a railway route is known as

- A. Location survey
B. Rapid survey
C. Reconnaissance survey
D. Preliminary survey

8. Surveys which are carried out to depict mountains, rivers, water bodies, wooded areas and other cultural details, are known as

- A. Cadastral surveys
B. City surveys
C. Topographical surveys
D. Guide map surveys

9. The representative fraction of a map scale 1 cm = 5 km is

- A. 1/500000 B. 1/500
C. 1/5000 D. 1/50000

10. The representative fraction (R. F) of scale 1 cm = 500 m is:

- A. 1:500 B. 1:5000
C. 1:50000 D. 1:50

11. The ruling principle of surveying is to:

- A. work from whole to part
B. work from part to whole
C. work from line to area
D. work from point to area

12. Surveys which are carried out to provide a national grid of control for preparation of accurate maps of large areas, are known

- A. Plane survey
B. Topographical survey
C. Geographical survey
D. Geodetic survey

Geodetic surveying:

The curvature of the earth is taken into consideration, and a very high standard of accuracy is maintained.

For large area more than 260km², geodetic surveying is used.

QUE	01	02	03	04	05	06	07	08	09	10	11	12
ANS	C	D	B	A	C	D	C	C	A	C	A	D





13. Surveys which are carried out to depict mountains, rivers, water bodies, wooded areas and other cultural detail, are known as:

- A. Cadastral surveys
- B. City surveys
- C. Topographical surveys
- D. Guide map survey

14. In order to determine the natural features such as valleys, rivers, lakes etc, the surveying preferred is

- A. city surveying
- B. local surveying
- C. topographical surveying
- D. cadastral surveying

15. For a well conditioned triangle, no angle should be less than

- A. 20 Deg.
- B. 30 Deg.
- C. 45 Deg.
- D. 60 Deg.

16. Hydrographic surveys deal with the mapping of

- A. large water bodies
- B. heavenly bodies
- C. mountainous region
- D. canal system

17. The survey in which the curvature of earth is ignored is termed as

- A. Geodetic survey
- B. Aerial survey
- C. Plane survey
- D. Geological survey

18. One sq. feet is equal to.... sq. m.

- A. 6.4516
- B. 6.5416
- C. 0.0929
- D. 4.5616

19. The effect of curvature of earth is neglected in case the area to be surveyed is less than :

- A. 800 sq. km
- B. 1000 sq. km
- C. 260 sq. km
- D. 560 sq. km

20. 1 s.q. metres.=.....sq. yards.

- A. 1.196
- B. 10.7639
- C. 1550
- D. 9

21. The survey which consist of observation of the heavenly bodies such as sun or any fixed star is

- A. Celestial Survey
- B. Astrological Survey
- C. Heaven Survey
- D. Astronomical Survey

22. The shrinkage factor of an old map is found to be 15/16 and the representative fraction of the map is 1/1600. The corrected scale for the map is

- A. 1/1600
- B. 1/1500
- C. 1/1706.6
- D. None of these

23. The plan of a map was photocopied to a reduced size such that a line originally 200 mm now measures 150 mm. The original scale of the plan was 1 in 1500. The revised scale will be 1 :

- A. $\frac{1}{1000}$
- B. $\frac{1}{20000}$
- C. $\frac{1}{2000}$
- D. $\frac{1}{200}$

Whole circle bearing system (WCB)
 Bearing of a line is measured always in clockwise from North end of reference.

 Bearing varies from 0° to 360°.

QUE	13	14	15	16	17	18	19	20	21	22	23
ANS	C	C	B	A	C	C	C	A	D	C	C





232. Arithmetic check for rise and fall method during a levelling operation are applied on :

- A. Fore sights and back sights only
- B. Back sights and intermediate sights only
- C. Back sights only
- D. Back sights, intermediate sights and fore sights.

233. Determining the difference in elevation between two points on the surface of the earth, is known as

- A. Levelling
- B. Simple levelling
- C. Differential levelling
- D. Longitudinal levelling

234. Dumpy level is most suitable when

- A. The instrument is to be shifted frequently
- B. Fly levelling is being done over long distance
- C. Many readings are to be taken from a single setting of the instrument
- D. All of the above

235. Reciprocal leveling eliminates

- A. Collimation error
- B. Collimation & curvature error
- C. Curvature and refraction error
- D. Collimation and curvature error fully and refraction partially.

236. Benchmark is established by

- A. Hypsometry
- B. Barometric levelling
- C. Spirit levelling
- D. Trigonometrical levelling

237. Length of ranging rod should be

- A. 1.5 to 2m.
- B. 2 to 3m.
- C. 3 to 4m .
- D. 2.5 to 4.5m.

238. If the back sight and foresight distance are kept equal during levelling observation, then the effect of the both refraction and earth's curvature will be

- A. $2/3d^2m$
- B. $0.06735d^2m$
- C. $0.057d^2(m)$
- D. Zero

239. Tilting level are used for

- A. Fly levelling
- B. Precise levelling
- C. Profile levelling
- D. None of the above

240. During levelling if back sight is more than foresight

- A. The forward staff is at lower point
- B. The back staff is at lower point
- C. The difference in level, cannot be ascertained
- D. None of these

241. The tangent to the liquid surface in a level tube, is parallel to the axis of the level tube at

- A. every point of the bubble
- B. either end of the bubble
- C. the mid-point of the bubble
- D. no where.

242. Refraction error is

- A. 1/5 of curvature error
- B. 1/3 of curvature error
- C. 1/7 of curvature error
- D. 1/4 of curvature error

243. Abney level is used for measuring

- A. Difference in elevation of two points
- B. Vertical angles and slopes
- C. Two lines at right angles
- D. Horizontal and vertical angles

Local attraction

Local attraction is the attraction of the magnetic needle to a local magnetic field other than earth's magnetic field.

The local magnetic field is caused by iron fences, iron pipes, steel bars, vehicles, steel doors and windows, iron deposits, etc.

QUE	232	233	234	235	236	237	238	239	240	241	242	243
ANS	D	B	C	D	C	B	D	B	B	C	C	B





244. In the case of dumpy level survey, during leveling, if back sight is more than foresight:
 A. The difference in level, cannot be ascertained
 B. The forward staff is at lower point
 C. The back staff is at lower point
 D. Both are at equal levels

245. Image of the objective formed should lie
 A. At the eyepiece
 B. In the plane of cross hairs
 C. At the centre of the eyepiece
 D. At the optical centre of the eyepiece

246. In levelling, height of instrument is
 A. The height of telescope above the ground at the time of observation
 B. The height of levelling staff
 C. The elevation of line of collimation
 D. Sum of the reduced level of BM and foresight

247. The rise and fall method of levelling provides a complete check on
 A. Back sight B. Fore sight
 C. Intermediate sight D. All of the above

248. A surface tangential to the level surface at any point is known as:
 A. Collimation surface
 B. Mean sea level
 C. Datum surface
 D. Horizontal surface

249. The liquid in a level tube should be
 A. Quick acting
 B. Non-freezing
 C. Stable under normal temperature variation
 D. All of the above

250. Dumpy level is most suitable when
 A. The instrument is to be shifted frequently
 B. Fly levelling is being done over long distance

C. Many readings are to be taken from a single setting of the instrument
 D. All of the above

251. The sight taken on a levelling staff held at a point of unknown elevation to ascertain the amount by which the above or below the line of sight, is called as
 A. Change point
 B. Fore sight
 C. Back sight
 D. Station

252. The collimation method for obtaining the reduced levels of points does not provide a check on:
 A. Fore sights
 B. Back sights
 C. Change points
 D. Intermediate sights

253. Which one of the following methods of levelling eliminates the error due to curvature and refraction?
 A. Fly levelling
 B. Levelling by equalizing the distances of backsight and foresight
 C. Check levelling
 D. Precise levelling

254. Which one of the following is not a self reading staff?
 A. Solid staff B. Folding staff
 C. Telescopic D. Target staff

“Your positive action combined with positive thinking results in success.”

– Shiv Khera

QUE	244	245	246	247	248	249	250	251	252	253	254
ANS	C	B	C	D	D	D	C	B	D	B	D



DESIGN OF REINFORCED CONCRETE STRUCTURES



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Engineering Academy



RCC

1. Minimum grade of concrete to be used in reinforced concrete as per IS: 456-2000 is:-

- A. M15 B. M20 C. M10 D. M25

2. Steel is preferred as reinforced material in concrete because:

- A. It is easily available
 B. It is the cheapest and good its strength
 C. It forms a good bond
 D. The coefficient of thermal expansion of steel and concrete is almost same

3. High yield deformed bars have a

- A. Definite yield value
 B. Chemical composition different from mild steel
 C. Percentage elongation less than that of mild steel
 D. Percentage elongation more than that of mild steel

4. Ratio of modulus of elasticity of steel to the concrete is

- A. Modular ratio
 B. Poisson's ratio
 C. A. and B. both
 D. None of the above

5. Ratio of permissible stress in direct compression and bending compression is

- A. Less than 1
 B. Between 1 and 1.5
 C. Between 1.5 and 2.0
 D. Greater than 2.0

6. Permissible limit for organic matter in curing water is

- A. 200 mg/L B. 400 mg/L
 C. 2000 mg/L D. Zero

7. Permissible limit for suspended matter in curing water is

- A. 200 mg/L B. 400 mg/L
 C. 2000 mg/L D. 150 mg/L

8. Modulus of elasticity for steel as per IS 456-1978 is

- A. 2×10^6 N/cm² B. 200 kN/mm²
 C. 200 kN/cm² D. 20 kN/cm²

9. Which of the following is not included in Limit State of Serviceability?

- A. Fracture due to fatigue
 B. Vibrations in the structure
 C. Corrosion
 D. Fire

10. Minimum longitudinal steel ratio required on any face at any section of beam for M 25 and Fe 500 is:

- A. 0.0024 B. 0.24
 C. 0.48 D. None of these

11. The ability of a material to endure alternate wet and dry conditions for a long period without considerable deformation and loss of mechanical strength is called:

- A. chemical resistance
 B. fire resistance
 C. weathering resistance
 D. frost resistance

12. The ratio of 28 day compressive strength of cube to that of a standard cylinder is

- A. 1.25 B. 0.80
 C. 0.67 D. 1.00

QUE	01	02	03	04	05	06	07	08	09	10	11	12
ANS	B	D	C	A	A	A	C	B	A	D	C	A





27. Permissible stress σ_{cbc} as per IS: 456 for M20 concrete is :

- A. 5 N/mm² B. 7 N/ mm²
- C. 6 N/ mm² D. 4 N/ mm²

28. The maximum compression strain in concrete in axial compression is taken as

- A. 0.002 B. 0.5 C. 0.005 D. 0.2

29. For making reinforced cement concrete, the pH of water is restricted to minimum of

- A. 6 B. 5 C. 4 D. 7

30. Very fine aggregate is obtained from

- A. Zone I B. Zone II
- C. Zone III D. Zone IV

31. The creep coefficient when the loading is done after one year

- A. 2.2 B. 1.6
- C. 1.1 D. None, of these

32. The minimum grade of concrete used for water tank is

- A. M 30 B. M 35
- C. M 40 D. M 45

33. Flexural collapse in over-reinforced beam is due to

- A. Compression failure
- B. Tension failure
- C. Yielding of steel
- D. None of these

34. Factor of safety is defined as the ratio of

- A. ultimate stress to working stress
- B. working stress to ultimate stress
- C. breaking stress to ultimate stress
- D. ultimate stress to breaking stress

35. By over-reinforcing a beam, the moment of resistance can be increased not more than

- A. 0.2 B. 0.25 C. 0.1 D. 0.15

36. According to working stress method the limiting value of permissible tensile stresses for a reinforced concrete member in tension for HYSD grade Fe 415 is:

- A. 190
- B. 230
- C. 250
- D. 415

37. In a singly Reinforced Beam, if the permissible stress in concrete reaches earlier than the permissible stress in steel, the Beam section is called:

- A. Under Reinforced Section
- B. Economic Section
- C. Critical Section
- D. Over Reinforced Section

38. The working stress of a material is expected to be:

- A. Equal to ultimate stress
- B. Equal to yield stress
- C. Less than yield stress
- D. More than yield stress

39. As the percentage of steel increases

- A. Depth of neutral axis decreases
- B. Depth of neutral axis increases
- C. Lever arm increases
- D. Lever arm decreases

IS 456: 2000 - Plain and reinforced concrete
IS 875: 1987 (Part-I to V) - Code of practice for design loads.
 Part 1: Dead loads
 Part 2: live loads
 Part 3: wind loads
 Part 4: snow loads
 Part 5: special loads and load combinations

QUE	27	28	29	30	31	32	33	34	35	36	37	38	39
ANS	B	A	A	B	C	A	B	A	B	B	D	C	B



DOCKS, HARBOUR & PORTS



DOCKS, HARBOUR & PORTS

1. The width of the entrances of the harbours is restricted to

- A. 100 m
- B. 125 m
- C. 150 m
- D. 180 m

2. The beach is built:

- A. With largest material locally available to the waves
- B. With large material locally available to the waves
- C. With fine material locally available to the waves
- D. With finest material locally available to the waves

3. If H is the height of the wave expected, then the height of the breakwater is generally taken as

- A. $1.2 H$ to $1.25 H$ above the datum
- B. $1.2 H$ to $1.25 H$ above the low water level
- C. $1.2 H$ to $1.25 H$ above the high water level
- D. $1.2 H$ to $1.25 H$ above the mean sea level

4. Littoral drift

- A. Is the raised line of sand, parallel to the sea coast
- B. Is the slow movement of surface water at sea caused by the wind
- C. Is a current parallel to the shore, caused due to tangential component of the wind
- D. Is a current perpendicular to the shore line caused due to wind

5. Which one of the following statements is not relevant to hydrographic survey?

- A. Establishment of a chain of bench marks near the shore line
- B. Establishment of horizontal control points on the shore
- C. Determination of the sea bed profile
- D. None of these

6. According to the recommendations of International Navigational Congress in 1912, the ratio of length to width at the entrance for cargo vessels is

- A. 5.5 and 6.0 to 1
- B. 6.2 and 6.8 to 1
- C. 7.4 and 7.8 to 1
- D. 8.2 and 8.5 to 1

7. If F is the fetch, the straight line distance of open water available in kilometres, the height of the wave in metres is

- A. 0.15
- B. 0.20
- C. 0.28
- D. 0.34

8. Minimum width of ship clearance shall be

- A. B or 30 m
- B. $1.5 B$ or 50 m
- C. $1.5 B$
- D. 50 m

Where B is beam of design vessel

9. Which one of the following statements is correct?

- A. The soundings are made with respect to the mean low water
- B. The soundings which are below the datum are written in black on the map
- C. The spot heights of the features above datum are written in red on the map
- D. All the above

10. Which of the following are repair docks?

- A. Marine railways, dry docks, floating docks, wet docks
- B. Dry docks, wet docks, floating docks, lift docks
- C. Wet docks, floating docks, lift docks, marine railways
- D. Wet docks, lift docks, marine railways, dry docks

11. For location of soundings a range and one angle from the shore involves the following operations.

Which one is correct?

- A. A range line is established
- B. The first and the last soundings and every tenth soundings are fixed by angular observations
- C. The intermediate soundings are fixed by the time intervals
- D. All the above

QUE	01	02	03	04	05	06	07	08	09	10	11
NS	D	A	C	C	D	C	D	A	D	C	D





12. Location of soundings by two angles from the shore requires establishing

- A. One range line parallel to shore
- B. One range line perpendicular to shore
- C. Two range lines mutually perpendicular
- D. No range line

13. Pick up the correct statement from the following:

- A. The direction of the littoral drift depends upon the direction of the wave with respect to the coastline
- B. The direction of a river opening to the sea determines the direction of no littoral drift
- C. Harbour in the path of littoral drift is not constructed to avoid a build up of sand on one side and erosion on the other
- D. all of the above

14. The heaviest line is used to demarcate

- A. The low water line
- B. The high water line
- C. The limit of swamps
- D. The direction of current

15. On a hydrographic map, the following feature is shown:

- A. High and low water lines
- B. Depth contours
- C. Land and water areas
- D. All the above

16. Due to the impact of water wave on a sea shore structure

- A. Hydrostatic pressure coupled with a strong momentary impact is caused
- B. Vibrations are subjected
- C. Internal pressure is developed
- D. All of the above

17. Assertion A: Intervention of undulations in the sea bed reduces the depth of wave at the section.

Reason R: No wave can have a height greater than the depth of water through which it passes

Select your answer based on the coding system given below:

A. Both A and R is true and R is correct explanation of A

B. Both A and R is true but R is not the correct explanation of A

C. A is true but R is false

D. A is false but R is true

18. Assertion A: Basin walls have to be of much greater height than dock walls.

Reason R: Tidal basins are subject to fluctuations of levels due to tidal variations

Select your answer based on the coding system given below:

A. Both A and R is true and R is the correct explanation of A

B. Both A and R is true but R is not correct explanation of A

C. A is true but R is false

D. A is false but R is true

19. Pick up the correct statement from the following:

A. A harbour without any port complex, is called a refuge harbour

B. A harbour used for fishery, is called fishery harbour

C. The terminal building of a commercial harbour consists of an administrative block, customs clearance and ware-houses

D. All the above

20. Pick up the correct statement from the following:

A. The breakwater which can be used as a platform for loading and unloading of cargo is called a mole

B. The brick masonry retaining wall which is used for loading and unloading of cargo is called quay wall

C. Three types of break waters are generally provided in harbours

D. All of the above

QUE	12	13	14	15	16	17	18	19	20
NS	D	D	B	D	D	A	A	D	D



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