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UNIVERSITI TUN HUSSEIN ONN MALAYSIA

**FINAL EXAMINATION
(ONLINE)
SEMESTER II
SESSION 2019/2020**

COURSE NAME : CONSTRUCTION MATERIALS
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PROGRAMME CODE : BBB
EXAMINATION DATE : JULY 2020
DURATION : I HOUR
INSTRUCTION : ANSWER ALL QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **EIGHT (8)** PAGES

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Q1 The major ingredients of Portland cement are _____.

- A. lime and silica
- B. lime and alumina
- C. silica and alumina
- D. lime and iron

Q2 The durability of concrete is proportional to _____.

- A. water-cement ratio
- B. cement aggregate ratio
- C. coarse aggregate sand ratio
- D. aggregate-water ratio

Q3 _____ is separation of coarse aggregates from concrete mixture.

- A. Bleeding
- B. Creeping
- C. Segregation
- D. Shrinkage

Q4 Retarder is added in concrete to _____.

- A. increase the initial setting time of cement paste
- B. decrease the initial setting time of cement paste
- C. render the concrete more water tight
- D. improve workability of concrete mix

Q5 Strength of concrete primarily depends upon _____.

- A. quantity of aggregate
- B. quantity of cement
- C. quality of water
- D. water-cement ratio

Q6 _____ is a process to make steel soft.

- A. Cementing
- B. Annealing
- C. Nitriding
- D. Tempering

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- Q7** The orientation of aggregate in concrete is _____.
- A. preferred
 - B. random
 - C. bidirectional
 - D. angular
- Q8** Continued hardening of concrete is accounted by _____.
- A. age
 - B. creep
 - C. shrinkage
 - D. hydration
- Q9** Which of the following cements is suitable for use in massive concrete structures such as large dams?
- A. Ordinary Portland cement
 - B. Low heat cement
 - C. Rapid hardening cement
 - D. Sulphate resisting cement
- Q10** The slump test of concrete is used to measure _____.
- A. compressive strength
 - B. consistency
 - C. homogeneity
 - D. water content
- Q11** Curing of concrete is achieved by providing _____.
- A. constant hot air
 - B. damp conditions
 - C. cold surface conditions
 - D. intermittent surface heat
- Q12** Covering iron with a thin coat of _____ is called galvanizing.

- A. zinc
- B. glaze
- C. tin
- D. aluminium

Q13 Pug mill is used for _____.

- A. preparation of clay
- B. moulding
- C. drying
- D. burning

Q14 The main function of alumina in brick is to _____.

- A. impart plasticity
- B. increase durability
- C. prevent shrinkage
- D. increase impermeability

Q15 _____ have high modulus of elasticity.

- A. Elastomers
- B. Soft plastics
- C. Semi-rigid plastics
- D. Rigid plastic

Q16 The type of bond for carrying heavy load is _____.

- A. Single Flemish bond
- B. Double Flemish bond
- C. English bond
- D. Dutch bond

Q17 Refractory bricks resist _____.

- A. high temperature
- B. chemical action
- C. dampness
- D. sulphur attack

- Q18** _____ is a modified form of English bond which used to strengthened the corner of walls.
- A. Facing bond
 - B. Flemish bond
 - C. Dutch bond
 - D. Brick-on-edge bond
- Q19** Bricks that are subjected to severe weather condition should be _____.
- A. permeable
 - B. porous
 - C. dense
 - D. sulphate resisting
- Q20** Inner part of timber log surrounding the pitch, is called _____.
- A. sapwood
 - B. cambium layer
 - C. heart wood
 - D. annual ring
- Q21** Minimum thickness of wall where single Flemish bond can be used is _____.
- A. half brick thick
 - B. one brick thick
 - C. one and a half bricks thick
 - D. two bricks thick
- Q23** Compared to mild steel, cast iron has _____.
- A. low compressive strength
 - B. low melting point
 - C. high tensile strength
 - D. less hardness
- Q24** The plywood _____.
- A. has good strength along the panel
 - B. can be split in the plane of the panel
 - C. has greater impact resistance than ordinary wood
 - D. bent more easily than ordinary wood of same thickness

- Q25** Knots in timber are _____.
- A. defects cause by crushing fibres
 - B. splits radiating from the center
 - C. speckled strains
 - D. signs of branches cut off
- Q26** Seasoning of timber is essential to remove _____.
- A. knots from timber
 - B. sap from timber
 - C. twisted fibre from timber
 - D. roughness of timber
- Q27** The crack cause by shrinkage of the exterior surface of the wood exposed to atmosphere are called _____.
- A. wind cracks
 - B. radial shakes
 - C. heart shakes
 - D. twisted fibre
- Q28** Covering iron with a thin coat of _____ is called galvanizing.
- A. zinc
 - B. glaze
 - C. tin
 - D. aluminium
- Q29** Sapwood consist of _____.
- A. thin fibre which extends from the pith outwards and hold the annual rings together
 - B. portion of timber between heartwood and cambium layer
 - C. innermost annual rings around the pith
 - D. thin layers below the bark
- Q30** Age of a tree may be ascertained by _____.
- A. number of branches
 - B. radius of stem
 - C. number of annual rings
 - D. circumference of stem

Q31 Which of the following is not a variety of industrial timber?

- A. Baulk
- B. Veneers
- C. Plywood
- D. Fibreboard

Q32 _____ is the defect cause by imperfect seasoning.

- A. Cup shake
- B. Knot
- C. Honeycombing
- D. Dry rot

Q33 Plastic are divided into thermoplastic and thermosetting based on _____

- A. structure
- B. mechanical properties
- C. physical properties
- D. behavior with respect to heating

Q34 Bullet proof glass is made of thick glass sheet sandwiched by layer of _____.

- A. steel
- B. high test plastic
- C. stainless steel
- D. chromium plate

Q35 Brass is an alloy of _____.

- A. copper and zinc
- B. zinc and lead
- C. copper and silver
- D. zinc and nickel

Q36 Which of the following is the purest form of iron?

- A. Cast iron
- B. Wrought iron
- C. Mild steel
- D. High carbon steel

Q37 Stainless steel resists corrosion due to _____.

- A. carbon
- B. sulphur
- C. vanadium
- D. chromium

Q38 Wrought iron is used for _____.

- A. structural works in beam
- B. small sized water pipes
- C. columns
- D. frame and fixtures

Q39 Raw materials mainly needed for production of steel are _____.

- A. iron ore, coal sulphur
- B. iron ore, carbon and sulphur
- C. iron ore, coal and lime stone
- D. iron ore, carbon and lime stone

Q40 Bessemer process is used for the manufacture of _____.

- A. pig iron
- B. cast iron
- C. steel
- D. wrought iron

-END OF QUESTIONS-