

December 2018

BUILDING SERVICES & ENTREPRENEURSHIP DEVELOPMENT*Time Allowed: 3 Hours**Full Marks: 70***Answer to Question No.1 is compulsory and to be answered first.****This answer is to be made in separate loose script(s) provided for the purpose.****Maximum time allowed is 45 minutes, after which the loose answer scripts will be collected and fresh answer scripts for answering the remaining part of the question will be provided.****On early submission of answer scripts of Question No.1, a student will get the remaining script earlier.****Answer any five questions from the rest.**

1. Choose the correct answer from the given alternatives (any twenty): 20×1
- i) The pipe which is resistance to corrosion by acidic or alkaline water is: a) Copper pipe, b) Zinc pipe, c) Cast Iron pipe, d) Cement concrete pipe.
 - ii) The valve which is used to flow in one direction is: a) Scour valve, b) Air Valve, c) Reflux Valve, d) Gate Valve.
 - iii) The pipe in which only human excreta flows is: a) Soil pipe, b) Waste pipe, c) Vent pipe, d) Rainwater pipe.
 - iv) In which system both soil pipe and vent pipe are separately ventilated by vent pipe: a) Single stack system, b) one pipe sys, c) Two pipe system, d) All the above.
 - v) The member which is used to guide the movement of the lift car in a vertical direction is: a) Lift Well, b) Guide rails, c) Suspension ropes, d) Lift beams.
 - vi) The recommendation capacity of lift for large office building: a) 2000 kg, b) 2020 kg, c) 2040 kg, d) 2050 kg.
 - vii) For fire exist requirements, the minimum width of internal staircase is: a) 1000 mm, b) 600 mm, c) 500 mm, d) 700 mm.
 - viii) Fire lift should be provided with a minimum capacity of: a) 6 passengers, b) 8 passengers, c) 4 passengers, d) 10 passengers.
 - ix) In which of the following case, the fire lift are provided: a) the height of the building above 12m, b) the height of the building above 10m, c) the height of the building above 15m, d) the height of the building above 20m.
 - x) Choose the correct formula for calculating the rate of ventilation due to external wind: a) $Q=KAV$, b) $Q= K/AV$, c) $Q= AV/K$, d) $Q= VK/A$.
 - xi) A building should be oriented at any convenient angle between: a) 0-30°, b) 10°-30°, c) 15°-30°, d) 5°-30°.
 - xii) Humidification also known as: a) Addition of artificial light, b) Addition of air to water, c) Addition of sunlight, d) none of the above.
 - xiii) In NP-3 pipe, NP stands for: a) Non-pressure, b) Nominal pressure, c) New pressure, d) Newel pressure.
 - xiv) Entrepreneur means: a) Object, b) Office, c) Shop, d) Person.

- xv) Creativity is a function of: a) three components, b) two components, c) four components, d) five components.
- xvi) In SWOT analysis, S stands for: a) Strength, b) Stiffness, c) Society, d) Sector.
- xvii) Select the correct example of Environmental risk: a) Disaster, b) Interest Rate, c) Bank Balance, d) Technology failure.
- xviii) In which concept, it assumes that customers are primarily interested in products availability and low crisis: a) the product concept, b) production concept, c) selling concept, d) marketing concept.
- xix) Breakeven point comes when profit is: a) high, b) low, c) zero, d) medium.
- xx) Product cost includes: a) direct labour cost, b) direct material co, c) cost of deliver the product to customer, d) all the above.
- xxi) CBA stands for: a) Cost benefit analysis, b) customer based appraisal, c) current cost analysis, d) cost based analysis.
- xxii) Technical feasibility includes: a) location, b) raw materials, c) available technology, d) all the above.
- xxiii) Fourth stage of project life cycle is: a) growth stage, b) maturity stage, c) decline stage, d) introductory stage.
- xxiv) Choose the correct formula for working capital: a) working capital = current asset – current liabilities, b) working capital = current asset + current liabilities, c) working capital = current asset / current liabilities, d) working capital = current asset × current liabilities.
- xxv) E-commerce means for: a) Electro-Commerce, b) Elective-Commerce, c) Electronic-Commerce, d) Electrical-Commerce.
2. Define traps. Explain in detail the different types of traps with sketch according to its shape. Name the different sanitary fixtures which are used in building. 2+6+2
3. State the different types of pipe & joint used in plumbing system. State the classification of cement concrete pipe. Define valves. Name the different types of valves. 4+2+2+2
4. Define the following (any five): (i) Lift car, (ii) Call indicator, (iii) Lift pit, (iv) Lift contact speed, (v) Lift machine, (vi) Life well, (vii) Soil pipe, (viii) Waste pipe, (ix) Artificial lighting. 5×2
5. State the classification of building, according to the national building code of India based on occupancy. State the causes of fire. Define floor area ratio. Explain the term fire alarm & dry riser. 2+2+2+2+2
6. Mention different types of mechanical ventilation. Define filters. Mention its different types. Explain any one of them with figure. 2+2+2+4
7. Define entrepreneur. State the characteristics of entrepreneur. Explain in detail the SWOT analysis. 2+3+5
8. Write short note of the following (any five): (i) Liberalization, (ii) Risk taking and takers, (iii) Fish bone diagram, (iv) Brain storming, (v) Market assessment, (vi) Current ratio, (vii) Project appraisal, (viii) Dividend yield, (ix) Working capital. 5×2
9. Define creativity. State the qualities of creative person. Write the steps for opening the small scale industry. 2+3+5
10. Define profitability. Mention the different types of sources of finance. Explain in detail the term break even analysis. 2+2+6
11. Define global entrepreneur and project repot. Explain in detail the product life cycle. 2+2+6